

Red Line

~~Maths~~

Mathematics  
+  
Chemistry

POCKET NOTE  
BOOK

PROPERTY OF

~~Park X~~  
310 So. ~~ext~~  
20



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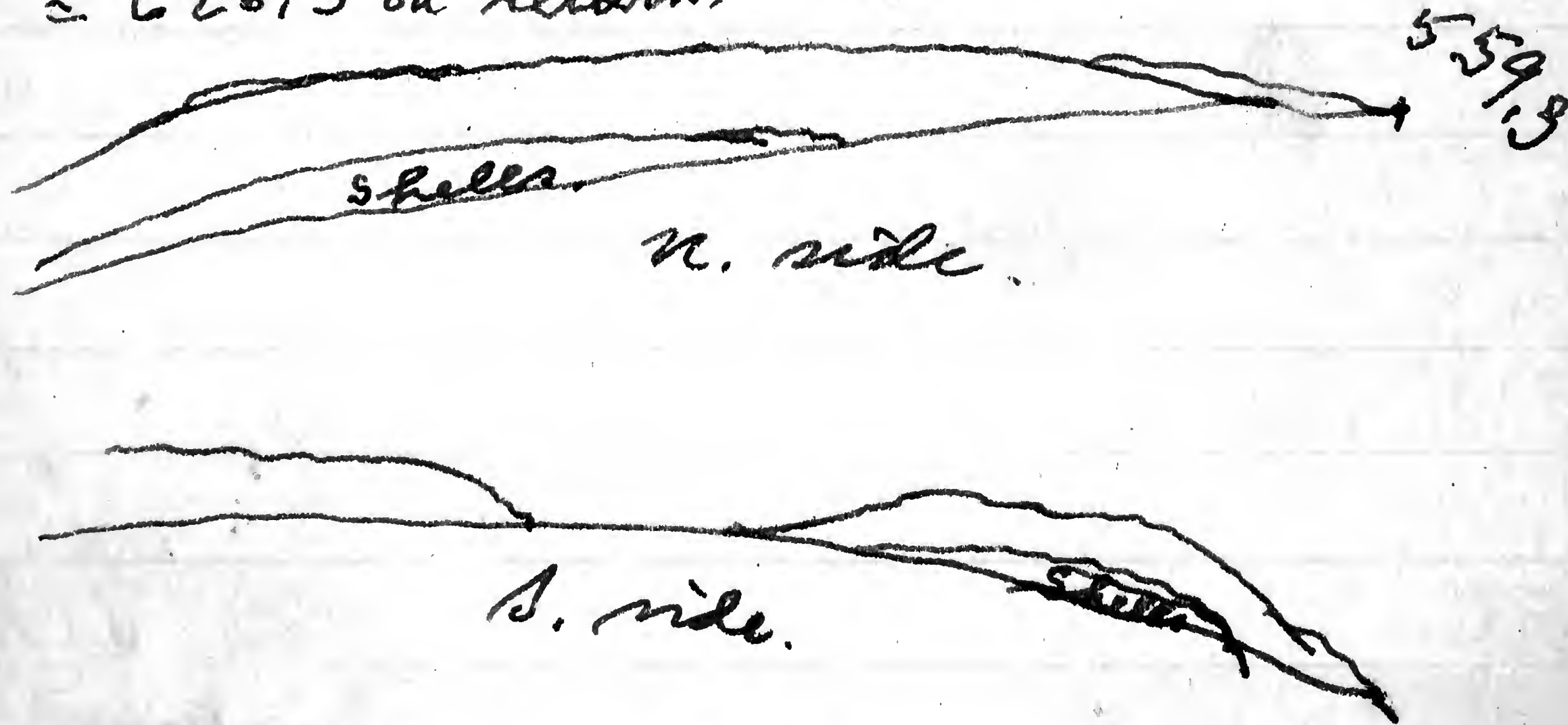
1.  
Old cut / along RR - S.W. of  
Atlanta, Ga. 6/11/1935.

Collected shells, mostly in lower  
3 or 4 ft. of cut where about 7 ft.  
deep. Took small carton of loess.

This cut is on a low broad  
ridge running at right-angles  
to Road #6, or angling. 1.6  
Road cut ridge at angle ~~1.6~~ mi.  
S.W. of Atlanta (on Road #6)

1st cut SW

On #6, 1.8 mi. S.W. of Atlanta  
(at 559.3, - a long cut begins.  
= 626.3 on return.



Runs down S.W.  
On return took box of loess from lower  
part, about  $\frac{1}{3}$  of way up the hill.

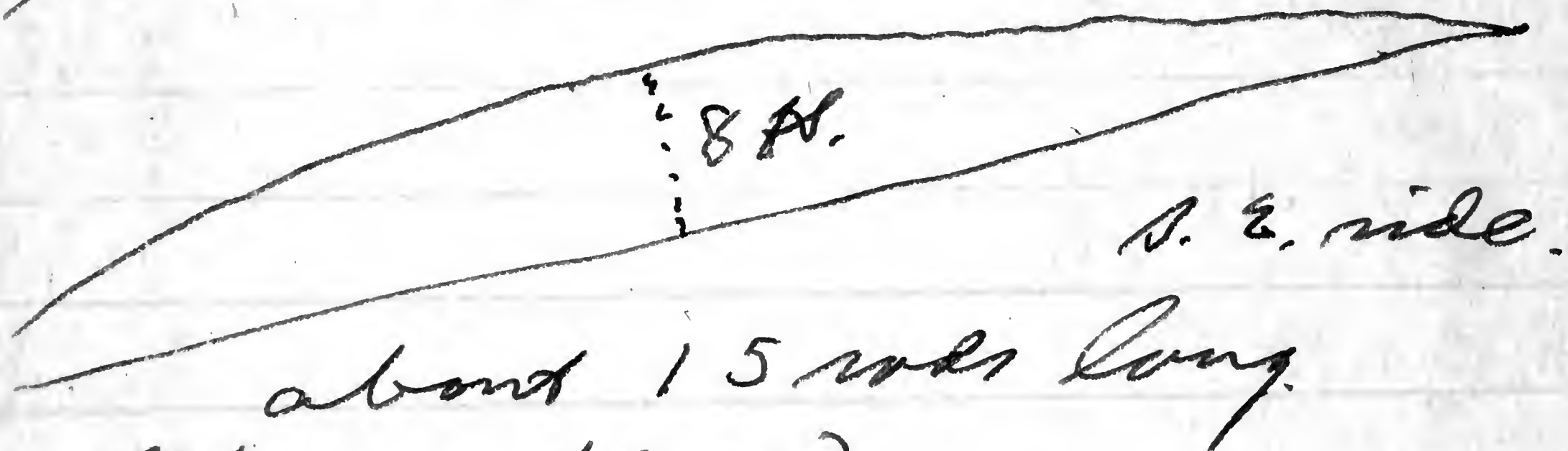


2<sup>nd</sup> cut.

4/11 1935

2

Cut 4 mi. S.W. of Atlanta, Neb.  
at 561.3 - on slope running up  
to S.W.



Like cut 1 (old).

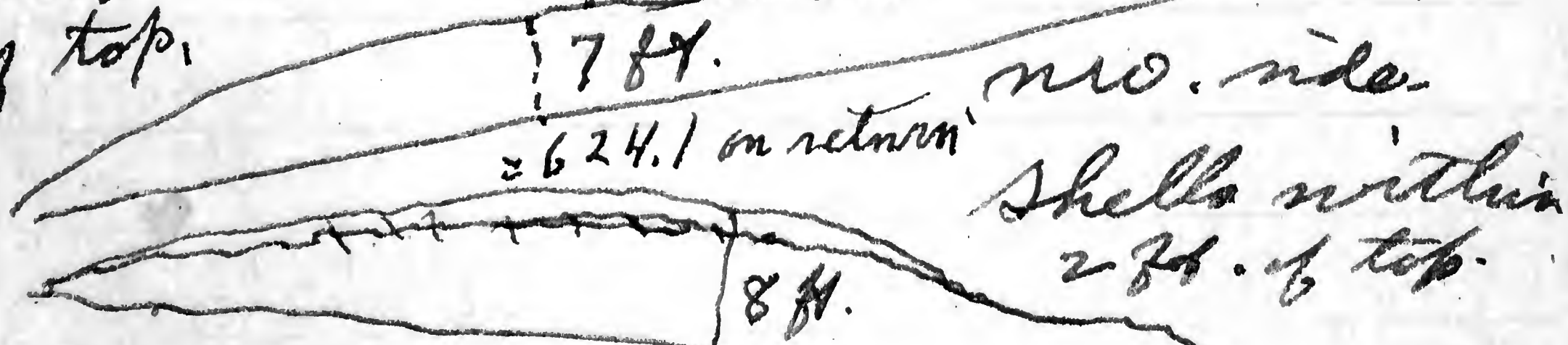
Fossiliferous mostly in lower  $\frac{1}{3}$

This cut is also on broad, irregular  
ridge. See shells.

6/11 1935

3<sup>rd</sup> cut S.W. of Atlanta, Neb. on #6.  
at 561.7, 4.4 mi. S.W.

about 15 rods long & 8 ft. deep  
in deepest part. Equally good on both  
sides. Took lot of loss on return - within  $2\frac{1}{2}$  ft.  
of top.



*Succinea ovalis*, - up  
6 ft. or more, - 2 were 1 ft. from  
top.



6/11 1935

3

Mascot - - 567.8

Good cut, sloping <sup>down</sup> S.W. at 569.6

another at 569.8 sloping up  
S.W.

" short, at 570.4

" " " 570.7

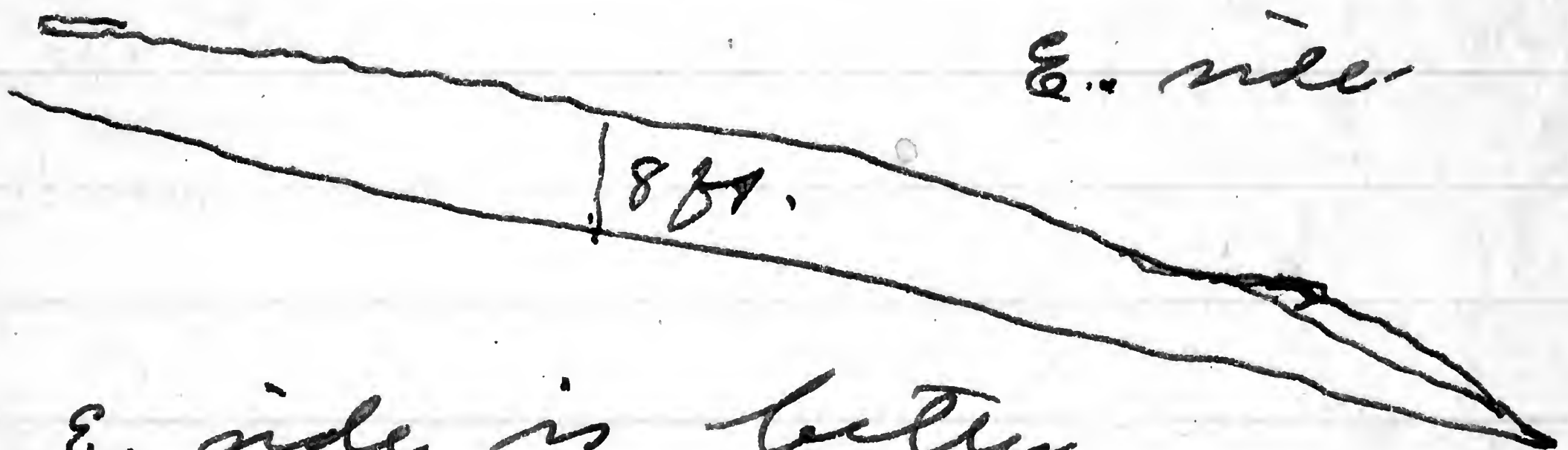
" " " 571.6

Oxford - 573.3

6/11 1935

On # 21, .6 mi. N. of Arapahoe, Neb.

6/11 1935



E. side is better.  
Like other cuts noted.  
Took sample + fossils.



617.9  
~~605.1~~  
28

11 1025

4



6/11 1935.

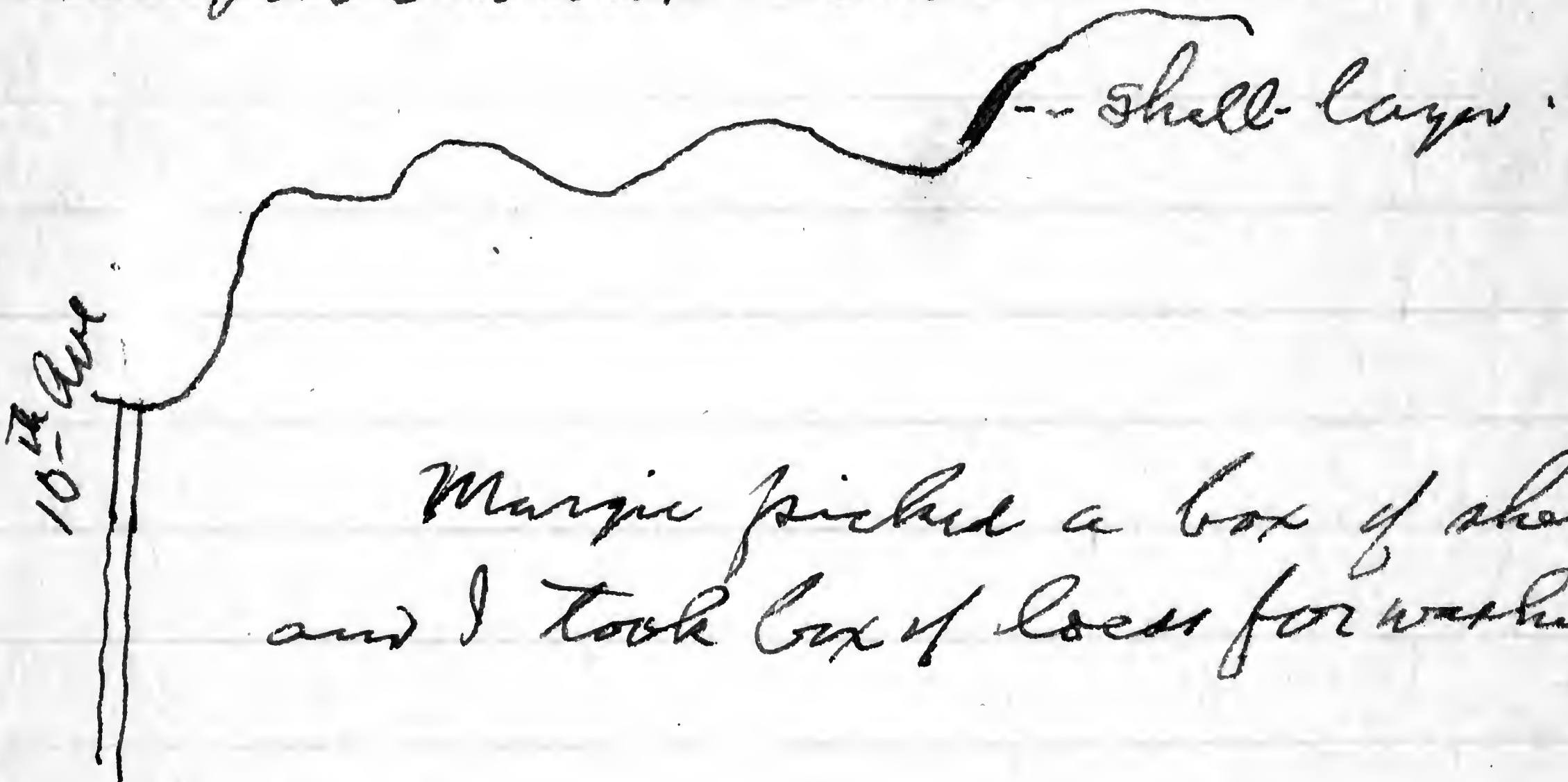
4

at 645.1, 2.8 mi. SW. of Mascot, Neb.  
on Road #6

cut 8<sup>9</sup> ft. deep - some shells.  
This is good cut 9 ft. deep;  
about 300 ft. long. Both sides  
good. See shells.

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Council Bluffs, Ia., 6/12 1935  
Shell layer along road opposite 10<sup>th</sup> Ave.,  
in Fairmount Park.



Margie picked a box of shells  
and I took box of loess for washing.



7/12 1935. Adams Co.

Cut 2.4 mi. west of Marcelline, Ill.  
(at 117). In road.

on S. side

about 12 ft. deep.

... Fossils.

yellow loess.

see sample.

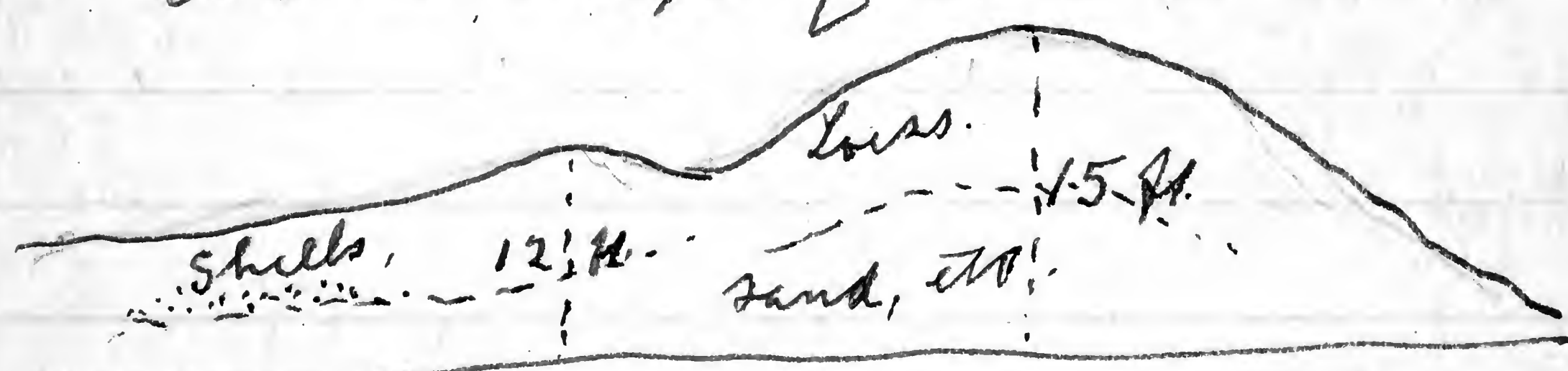
Road.

Fossils abundant in first two  
ft. near base.

7/12 1935.

at Kinderhook, Pike Co., Ill.

at S. edge of village



Road.

Yellow sandy loess, with sand  
below. Some nodules + shells.  
see spec.



7/12 1935. Alton, Ill.

6

Cliff str. -

Visited bluff-cut at W. end  
of Cliff str.  
collected 3 boxes of shells.

---

July 13, 1935

Cut on #40, opposite St. John's  
Cemetery, 1.9 mi. W. of Collinsville, Ill.  
where road runs down hill on bluff  
towards the west.

A long cut along road.

12 to 15 ft. deep.

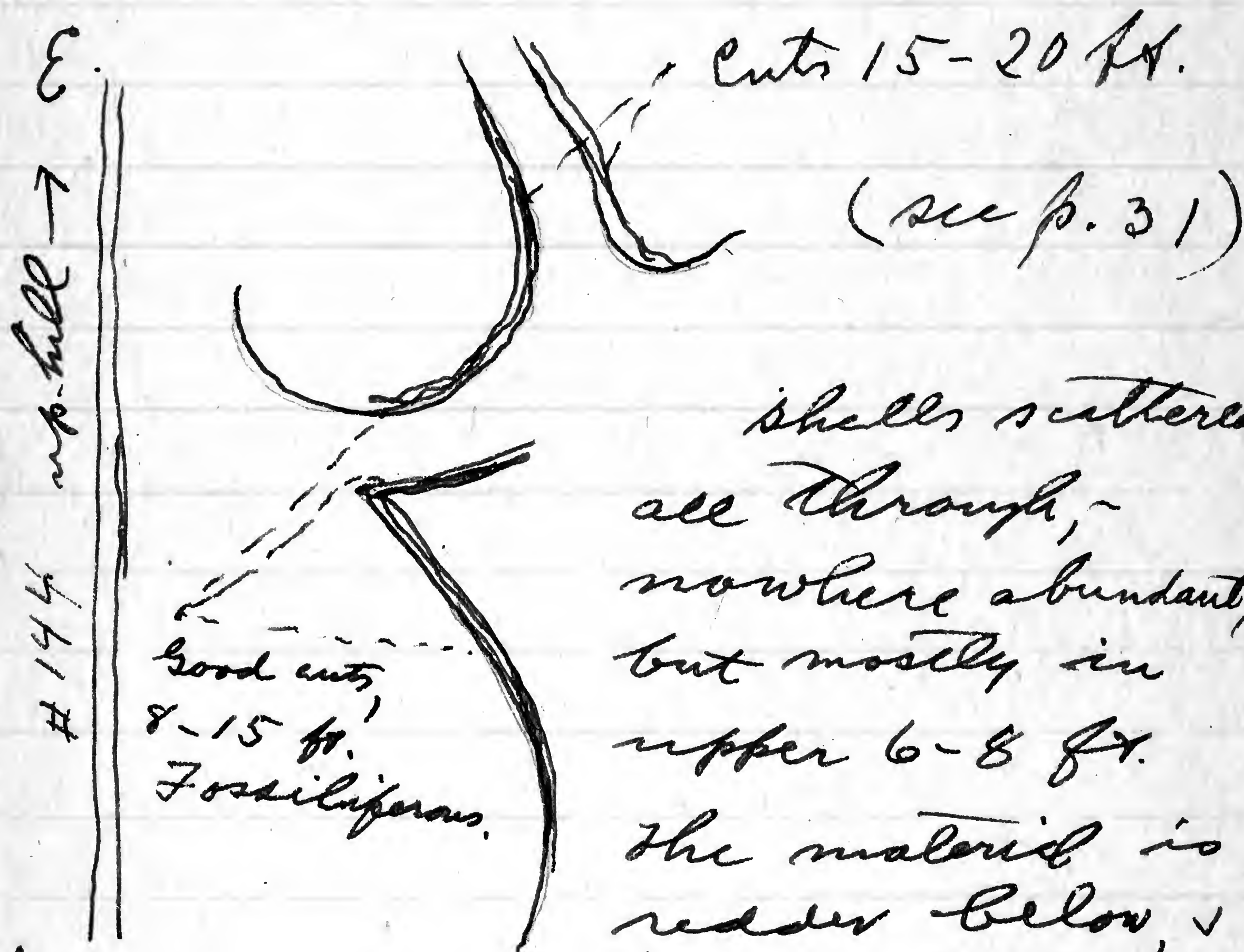
Fossils seem to be scattered  
through at least lower  $\frac{2}{3}$ .

The loess is mottled with much  
iron. Took shells, sample & box  
of loess.



7/13 1935. Cuts where Road #144

enters bluff, - at  $\frac{413}{409} \frac{3}{21}$  or  
4.1 mi. S.E. of Grain, Ill.



W.

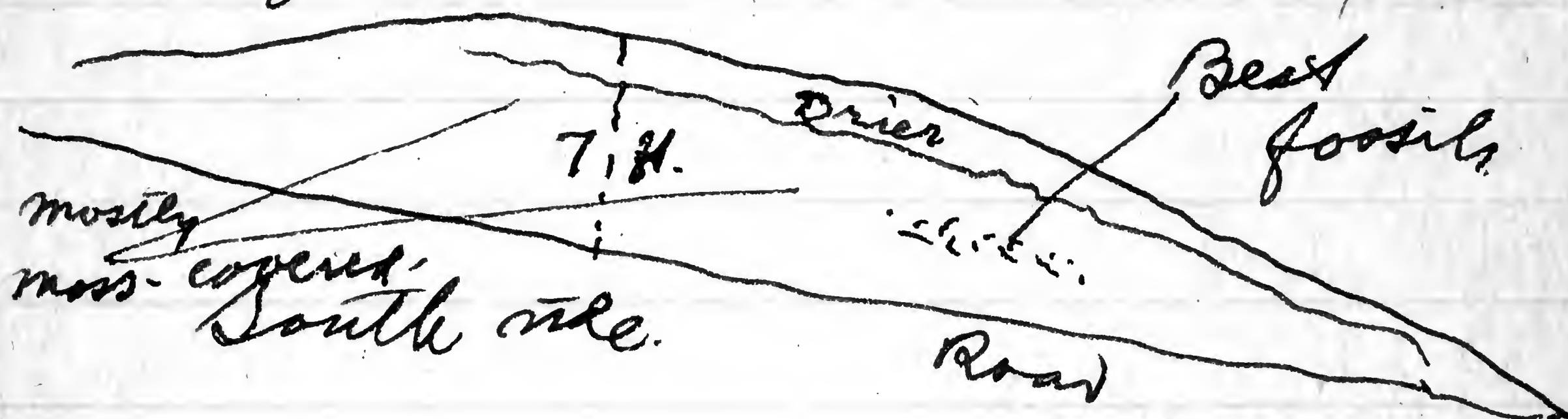
The fossiliferous upper part is mostly finer & lighter yellow, not reddish, but even the upper part of the redder stuff, grading into yellow loess, had a few fossils.



July 14, 1935

at 691.7, 3.9 mi. NW. of Mt. Vernon Ind.  
on Road #62 - a good  
loam cut on a rather gentle  
slope to west, in nice woods.

7.1½ mi. NW. from Conestoga, on #62



The loam is yellow and fine, with the shells scant and scattered all through but mostly about 3-5 ft. from top.

The upper 1½ ft. is drier & has no moss on it. Lower part below this, is nearly all covered with young mosses. Small lot of shells, & some modern, & a sample.

The N. side is similar, about 8 ft. high, not as clear, with shells 5 or 6 ft. down, few & with coarser stuff with many lime nodules near base.

This is a ridge of low bluff, facing river-flat.



July 14, 1935

S. + W. from Mt. Vernon, Ind.

1<sup>st</sup> cut along <sup>1<sup>st</sup></sup> road to Mackey Ferry,  
about 1 mile out:

Fine exposure of same yellow  
loess as in preceding.

Took sample & nice lot of fossils.

Fossils were scattered through  
about the lower 6 ft. - I could  
not reach higher.

Roughly estimated at 12 ft.  
No nodules

(See p. 116 of notebook (1935)  
for sketch of topography.)

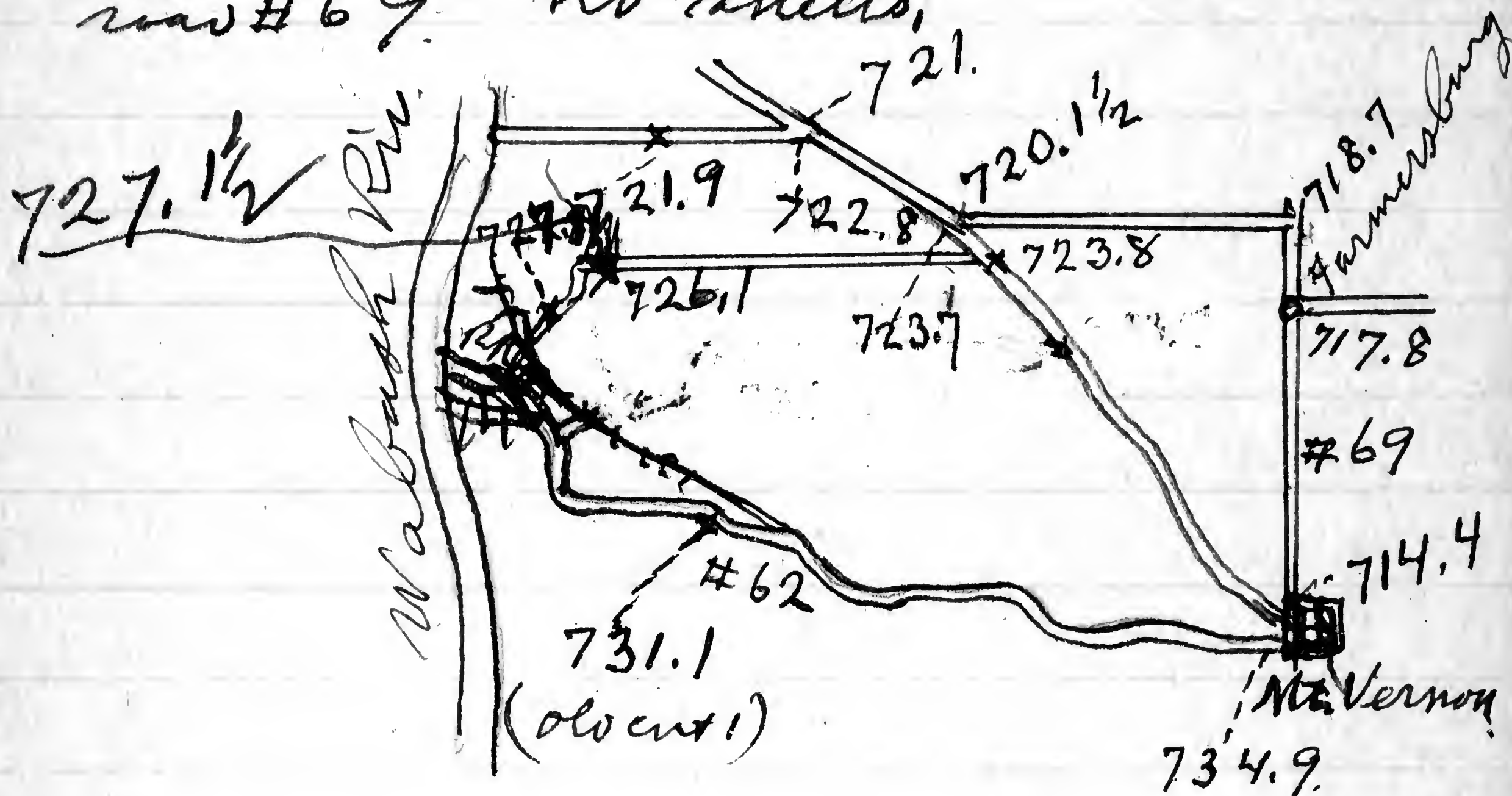
For topography & notes along 2<sup>nd</sup>  
road (S.) to Mackey's Ferry, up. 121.



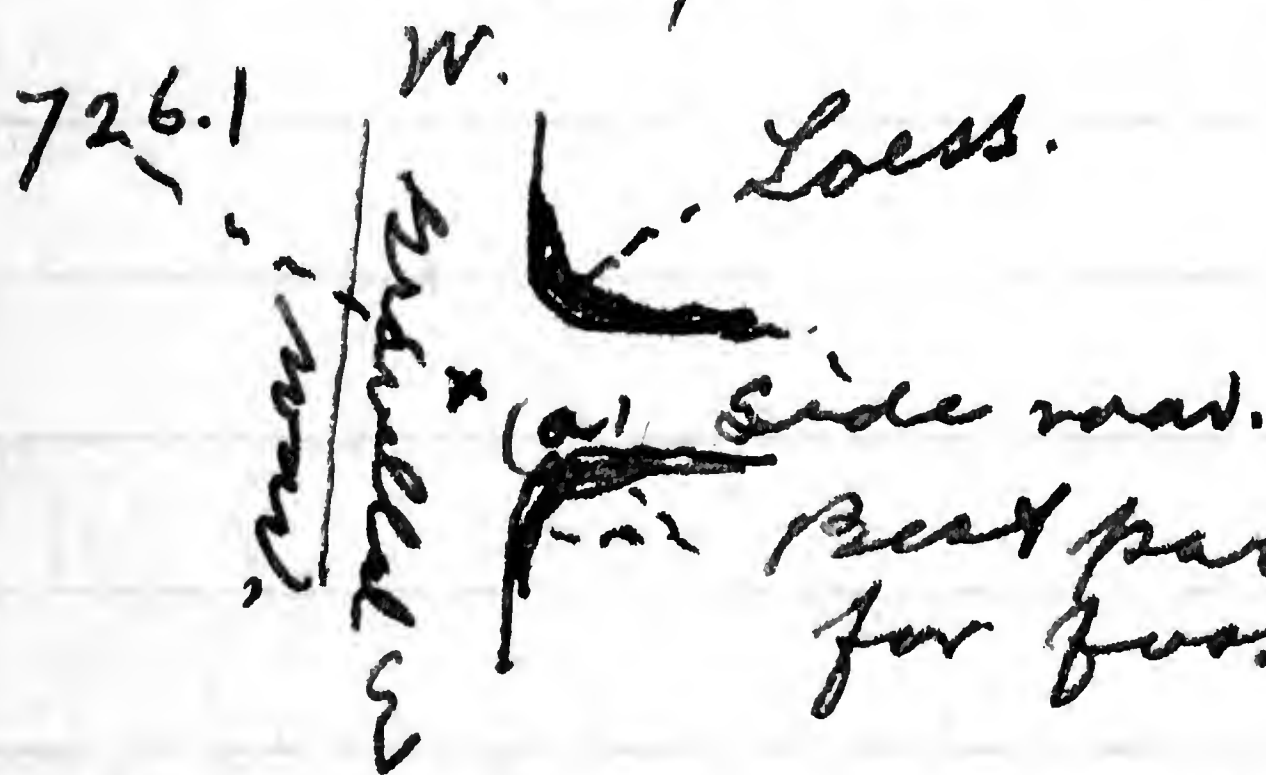
July 15, 1935

10

West on 1<sup>st</sup> road N. of Farmersburg,  
Ind., - thence NW, to 1<sup>st</sup> turn N.  
& then west to cut - 3.2 mi. from  
road #69. No shells.



At 726.1 (3.8 1/2 mi. W. of Farmersburg  
(or rather, road #69 N. of Farmersburg).



The same yellow  
loess, with shells  
scattered all  
through, but  
nowhere abundant.

The N.E. side, (a), has about 5 ft. of  
fossilif. loess below, & above it about 3  
or more feet of reddish joint stuff.  
See samples of both, & also shells.  
(over)



The upper layer is really  
not a joint clay but a  
harder, coarser loess (?) with  
some stratification. It is redder  
than the light yellow (or  
slightly brownish) loess.

July 15, 1935

11



July 15, 1935

11

At 727.1  $\frac{1}{2}$  (4.9 mi. W. of  
#69 above Farmington.)

A fine loess exposure about  
18 ft. deep on W. side (less, &  
overgrown on S. side).

8 ft.

The shells are scattered all  
through as far as I could see.  
The loess becomes gray in  
lowest part, with many iron  
mottlings.

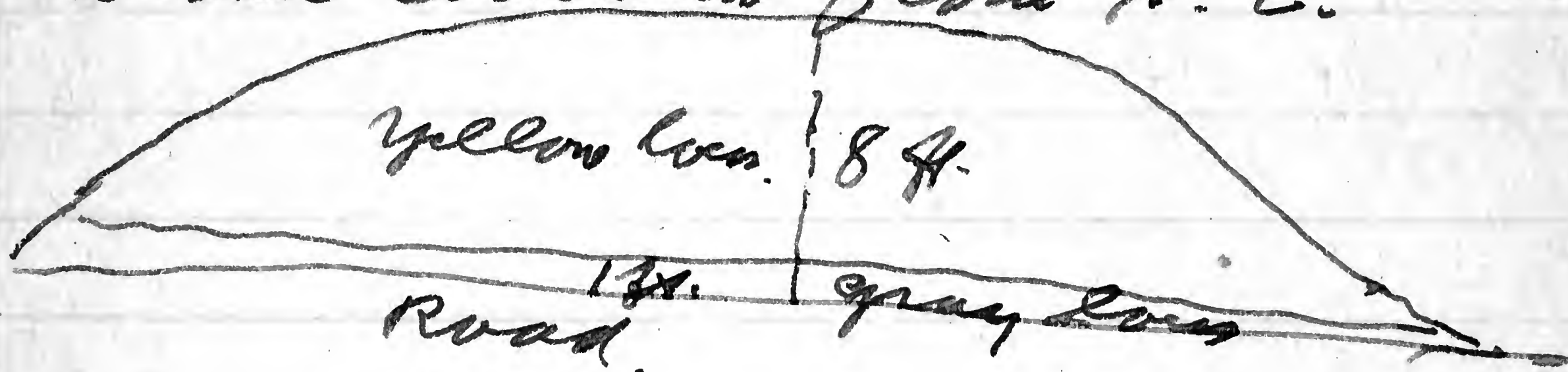
Took sample & box of loess. Shells



July 15, 1935

12

On E. side of no. 69, 13.2 miles  
N. of Mount Vernon, Ind., where  
a road comes in from S.E.



It runs about 8 ft. in highest place.  
The shells are scattered all  
through quite to the top and  
into gray layer (about 1 ft. exposed)  
at base. Modules are scattered  
irregularly through upper layer.  
Gray loess is smooth, uniformly  
gray, with only occasional  
clondings of iron. The upper  
loess, which looks yellow on  
older surfaces, is mottled and  
streaked with iron, - more  
pronounced below.

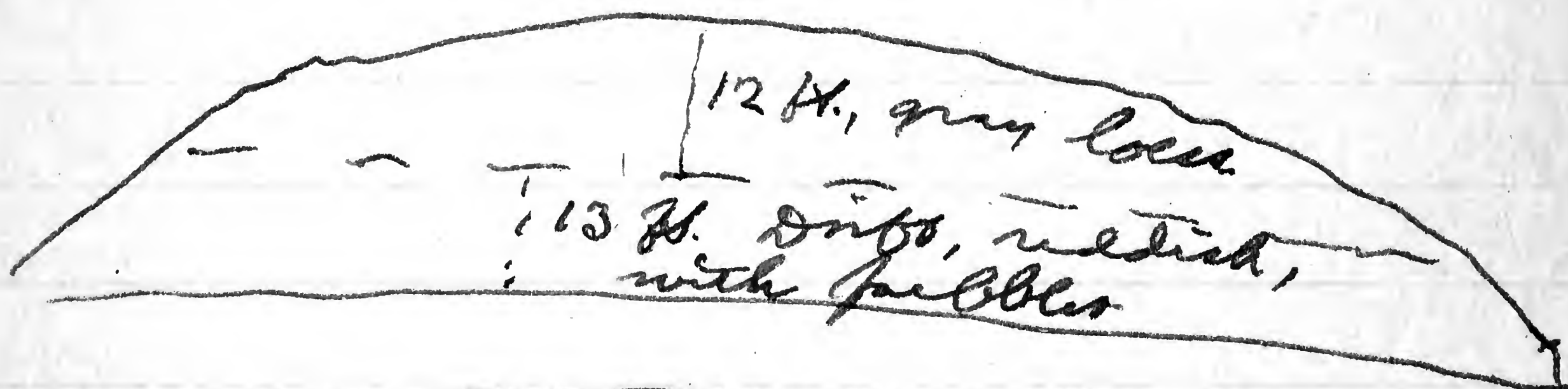
The fossils are about equally  
scattered through both.



July 15, 1935

At 13.5 mi. N. of Mo. Vernon, Ind., on #69, there is a long cut along E. side (none on west). The loess here runs about 12 ft., & seems to be all gray.

The lower 10-13 ft. is a hard joint clay with pebbles scattered through it, - especially downward. A few shells were found in slumped lumps of gray loess.



July 15, 1935

Cut on road to old dam, 1.1 mi. SW. of New Harmony, Ind. (at 757.9), 12 ft. on N. side of road, shows the yellow loess.

Found only 3 shells.

At 758 - another similar smaller cut.



July 15, 1935

14.  
A larger cut at 758.1 (-.9  
mi. SW. of New Harmony on old  
road to dam), <sup>fully</sup> 12 ft. deep.  
on S. E. side of road. Shows  
gray loess. Shells scattered.  
See ref. This is at edge of  
Town, opposite cemetery.

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July 15, 1935

about 1.75 mi. S.E. of Kilroy,  
Ind., on road leading E., where  
it enters bluff - at 811.4.

Cut is about 12 ft. deep, & shows  
the yellow, heavier loess, becoming  
gray below.

Shells and nodules scattered.

The gray below was not decided  
see shells.



July 16, 1935

15

Along Lower Mt. Vernon road S.  
(+ W.) of New Harmony, Ind.

Rush Cr. cut. at 823.6, 4.5 mi.  
S (+ W.) on this road.

Now at least 12 ft. deep on both  
sides. The shells are scattered  
through both sides, - rather more  
abundant within 3 or 4 ft. of base.  
Took samples from each side, and  
shells.



July 16, 1935

16

After #56 crosses RR. at Hazelton, turn left on gravel road, .9 from RR., a fine graded terrace shows about 9 ft. of gray loess (with very little iron discoloration), with shells scattered all through. See small set of shells. Took sample.

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at 940.6 - Took sample of red stuff.

July 16, 1935

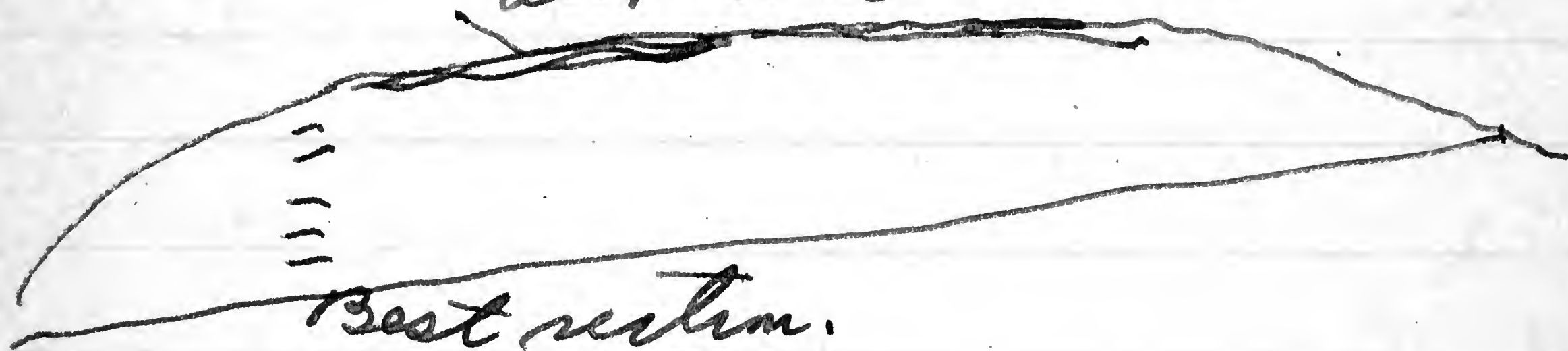
On #61, N. of Petersburg, Ind., S. of White River at 960.8½, 1.3½ mi. N. of Petersburg, On E. side cut is over 25 ft. deep. At top about 5-6 ft. of reddish loess. Then heavier loess, some parts gray, about 5 or 6 ft. Then red drift about 18 or 20 ft. Loess very hard when dry (gray) Picked up shells from fallen lumps of gray loess, shells very fragile. Mostly properly gray, but upwards it is yellowish.



July 17, 1935.

17

E. of Vincennes, Ind. on #6/-  
1<sup>st</sup> cut in bluffs, about 1.2 mile  
E. A very interesting cut. It runs  
up a moderate grade, eastward.  
Much of cut is overgrown,  
especially on N. side, along cut.  
atop soil?



- ~~~~~ ~~soil~~ soil-
- ~~~~~ 9 ft. of sand.
- ~~~~~ 2 ft. of sandy loess - Succinea
- ~~~~~ 2 ft. sand.
- ~~~~~ 2 ft. fine loess.
- ~~~~~ 2 1/2 ft. red drift
- ~~~~~ 8 ft. red, pebbly drift

The lower loess is soft, yellow  
seems to have no nodules  
and shells are scattered all  
through and extend down to the  
sharply defined red stuff.  
(over)



The upper loess is sandy  
and contains only Succinea.  
Layers not uniform.  
Evidently alternating dry  
& more moist periods.

In lower loess.

*Anguispira alternata*  
*Discus*

*Helicodiscus parallelus*

*Polyzyna profunda*

" *multilineata*

" *hirsuta*

" *fraterr.*

*Pupilla muscorum*

*Succinea ovalis*

" *acuta*

*Helicina scutella*

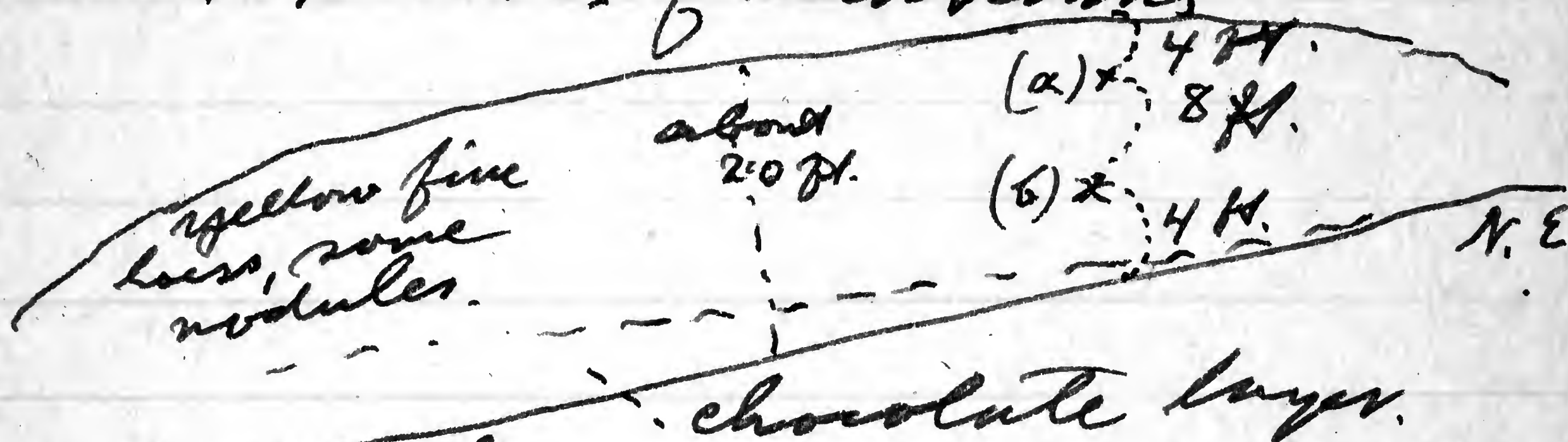
Aug. 27, 1935



Aug. 27, 1935

18

Cut along road in SW  $\frac{1}{4}$   
Sec. 14 - N. 2. of Lewistown.



S.W. Road.

at (a) upper sample.

at (b) lower

Shows vertical narrow gullies  
but without sharp ridges between.

This was at 202.2 miles on return.

3.5 mi. E. + 1.3 mi. N. 2. of  
Lewistown.

Cut is a little over  $\frac{1}{2}$  a tenth of a  
mile long. (about 275 ft.)

The shells are more or less in  
two layers - corresponding to  
two samples.

See shells



Aug. 27, 1935

19.

Cut 3.5 miles E. and 1 mi. S. of  
Leviatown.

Here is a fine cut. Also  
shows 2 layers of shells, like  
that in Sec. 14. Margin  
picked fossils from upper  
layer and I from lower.  
(see description next day) p. 21.)

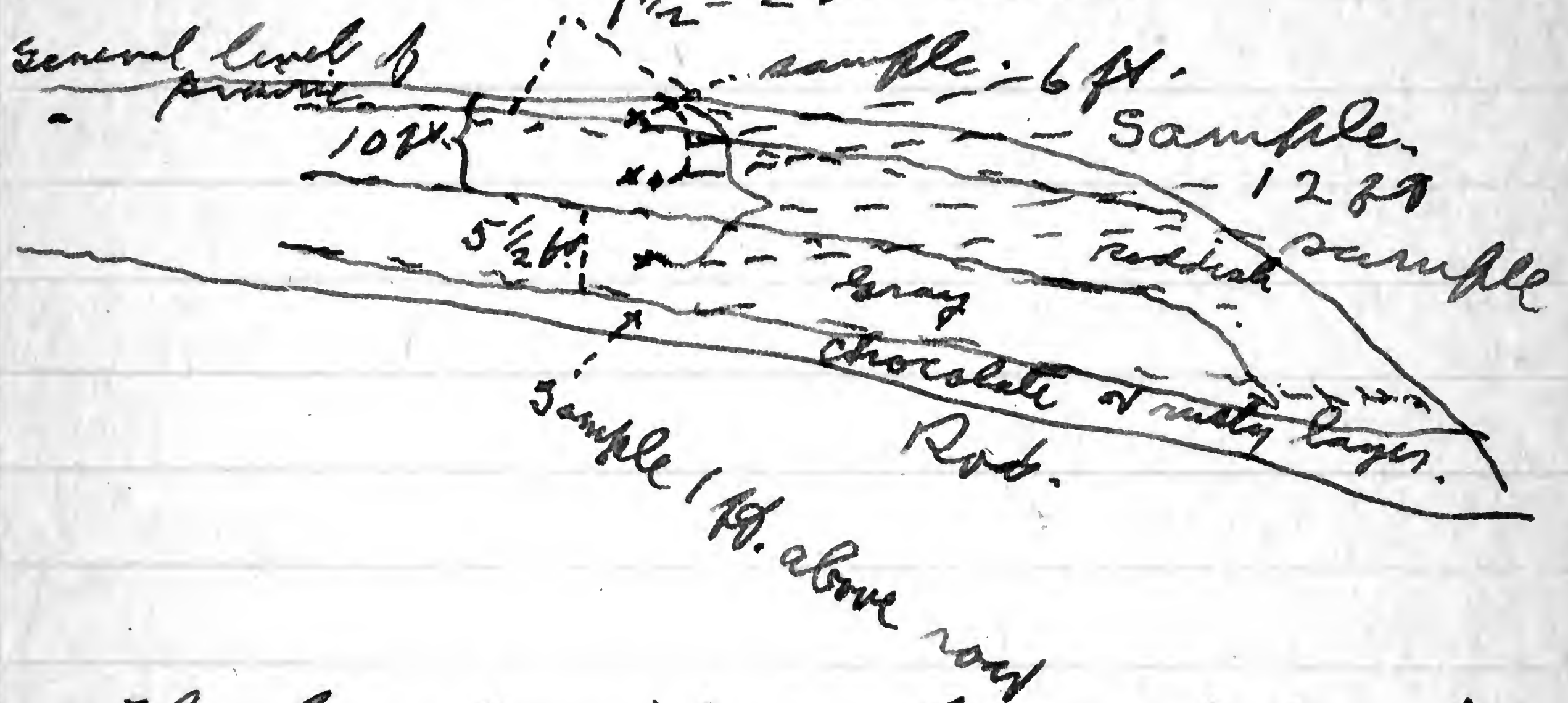
We found a number of the  
inland cuts without fossils,  
but the cut in Sec. 14 faces the  
Illinois River flat, and the  
other cuts N. of there is not  
far inland.

The loess is lighter yellow,  
very soft and friable (though  
very hard on the surface) and  
it makes dust !!! - Terrible! -



Aug. 28, 1935 (see p. 12 in 20  
1925 II notebook)

.75 mi. E. of Road # 31, Lewistown, Pa.  
S. side of cut, (exp. on weathered surface)  
grayish, (exp. on weathered surface)  
1 1/2 - 2 ft. thick.



The lowest rusty or chocolate layer is quite friable, the

The gray loam is compact & sticky, with iron bands and claudings.

The reddish layer is lumpy ("lobular").

Top grayish layer is also crumbly, but finer.

No fossils.

The contact between the two lowest layers is quite rusty.

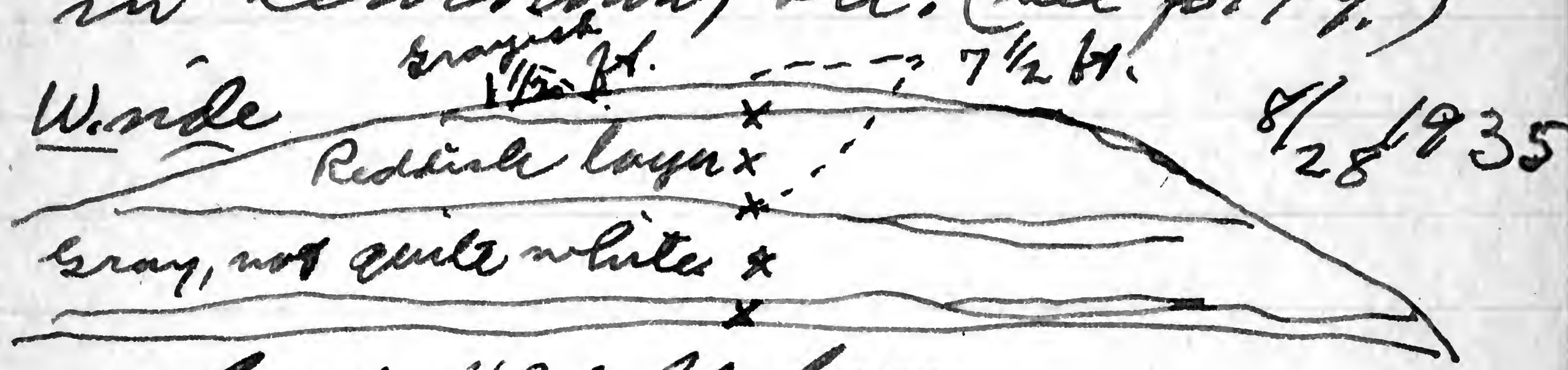
The N. side seems to be similar, but is more overgrown.

The gray loam runs out before reaching W. end of cut.

(Other cut - no fossils - on p. 13.)



cut on new road to Havana,  
3.5 mi. E. + 1 mi. S. of #31  
in Lewistown, Ill. (see p. 19.)



about 420 ft. long.

The E. side is a little shorter at N. end.

The gray loess grows more chocolate towards base.

Fossils extend well to base into faint chocolate.

Uppermost grayish is friable + gray on exposure. Reddish inside.

Took sample less than 1 ft. from top.

Reddish layer, - lobular, redder, heavier. Took sample 3 ft. from top.

Gray loess - with reddish clouding and 2 bands of shells (see cross-sec.)

Took sample at 7 1/2 ft. where gray + reddish meet. Line is quite sharp.

Took 3 samples of gray loess, one in upper band, one in middle + 1 in lower band.  
(over)



Section of preceding (p. 21)  
of gray loess.  
(Reddish)

---

1-2 ft.

~~~~~  
About 2 ft. Shell band.

Few shells  
(scattered)

} About  
5 ft.

~~~~~  
Shell band.

} About  
3 ft.

} About  
2 ft.

===== Rusty band.

1 or 2 ft. Chocolate layer, crumbly  
in ditch.

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Shells more abundant in lower layers.  
Margie also collected on E. side  
(only lower part, - she saw none above)  
The shells were not as abundant  
as on W. side.

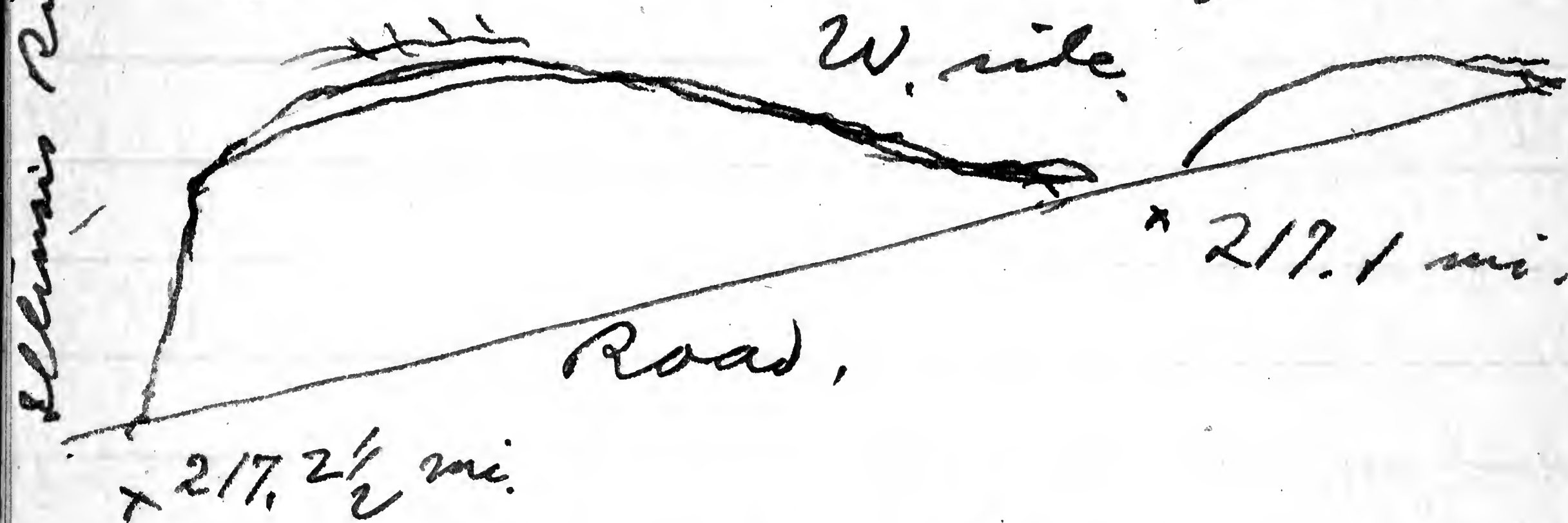
Aug. 28, 1935



Aug. 28, 1935

Big cut, 3.5 mi. E. + 1.5 S. to  
point between the two cuts on  
W. side of road. (at 217.1)

Lower end of big part of cut =  
217.2½. This makes big part  
of cut nearly 800 ft. long.  
This is where road cuts through  
bluff to Illinois River flat.



The upper cut begins at top  
+ extends about ¼ way down. The  
E. side is higher, shows gray loess  
below + a little reddish above.  
There is a shell-band, - interrupted  
within the lower 6 ft., - could see  
some above. This E. side is  
about 12 ft. deep.

The W. side is about 8 ft. deep, &  
also shows a few Sec. ovalis, Polygona  
multilobata, etc. (over) Marjorie gathered some shells  
here.



The big part of cut (or 2<sup>nd</sup> cut)  
below is higher on the W. side.  
Marpie picks shells from E.  
side of ~~upper~~ upper part (up  
hill) of this lower cut.

One lot was taken (on E. side)  
about 3 or 4 ft. below top (no  
shells above this).

The other (lower) lot she collected  
from lowest 6 ft., but there  
were shells scattered between (not  
much distinction here)

On the W. side of (lower) big  
cut. There were no shells in  
the uppermost 3 or 4 ft.

The shells run through the upper  $\frac{1}{2}$   
of gray loess quite uniformly,  
and they are very abundant.  
Many were crushed, especially  
Polyg. multilincata

Took sample of gray loess (W. side)  
in sack.

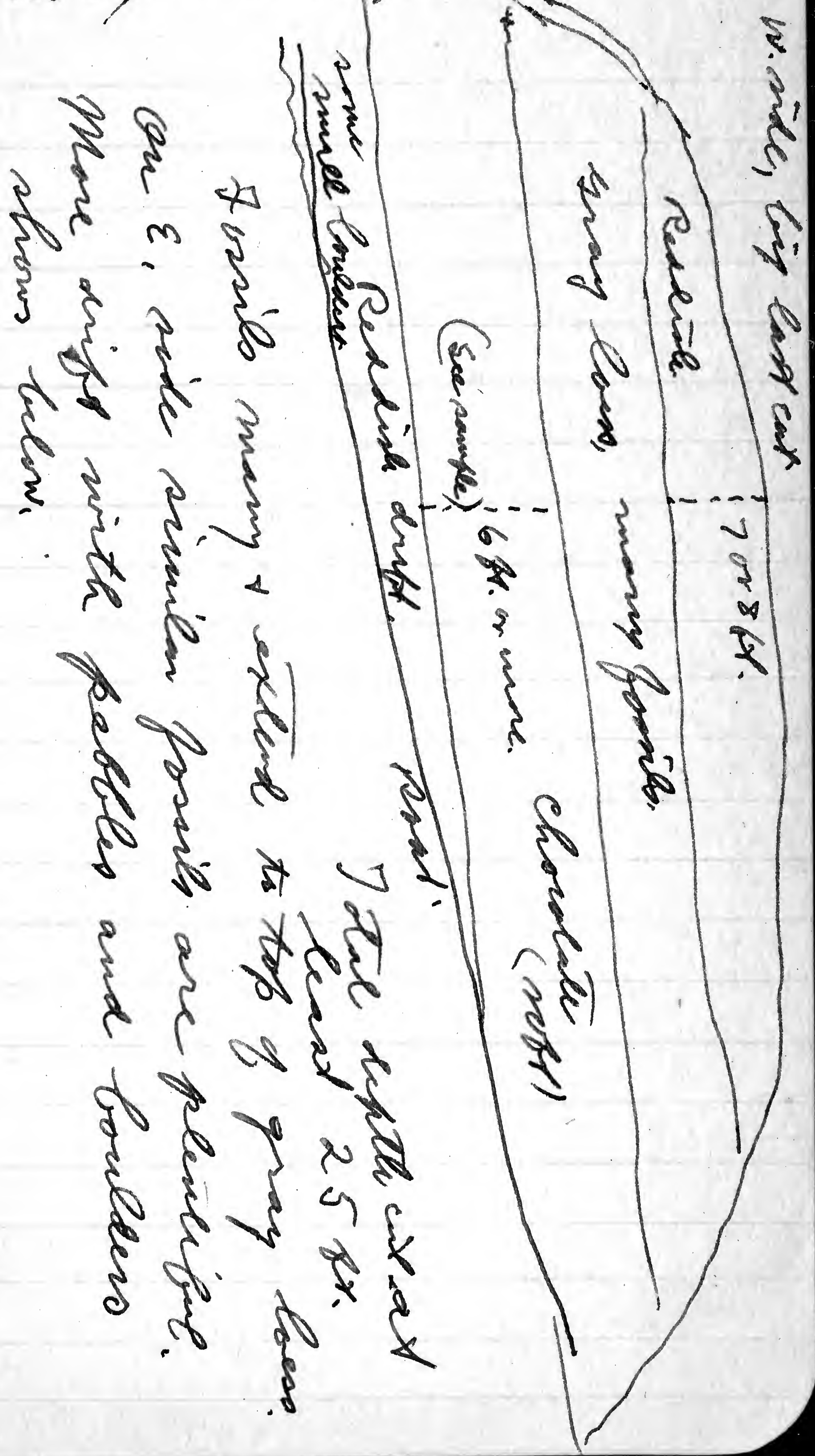
At lower end of big cut at least  
6 ft. of shaly rock appears at base.

Reddish drift above rock, 23



6 ft. of shaly rock appears at base.

Reddish drift above rock, 23  
probably 8 or 10 ft.

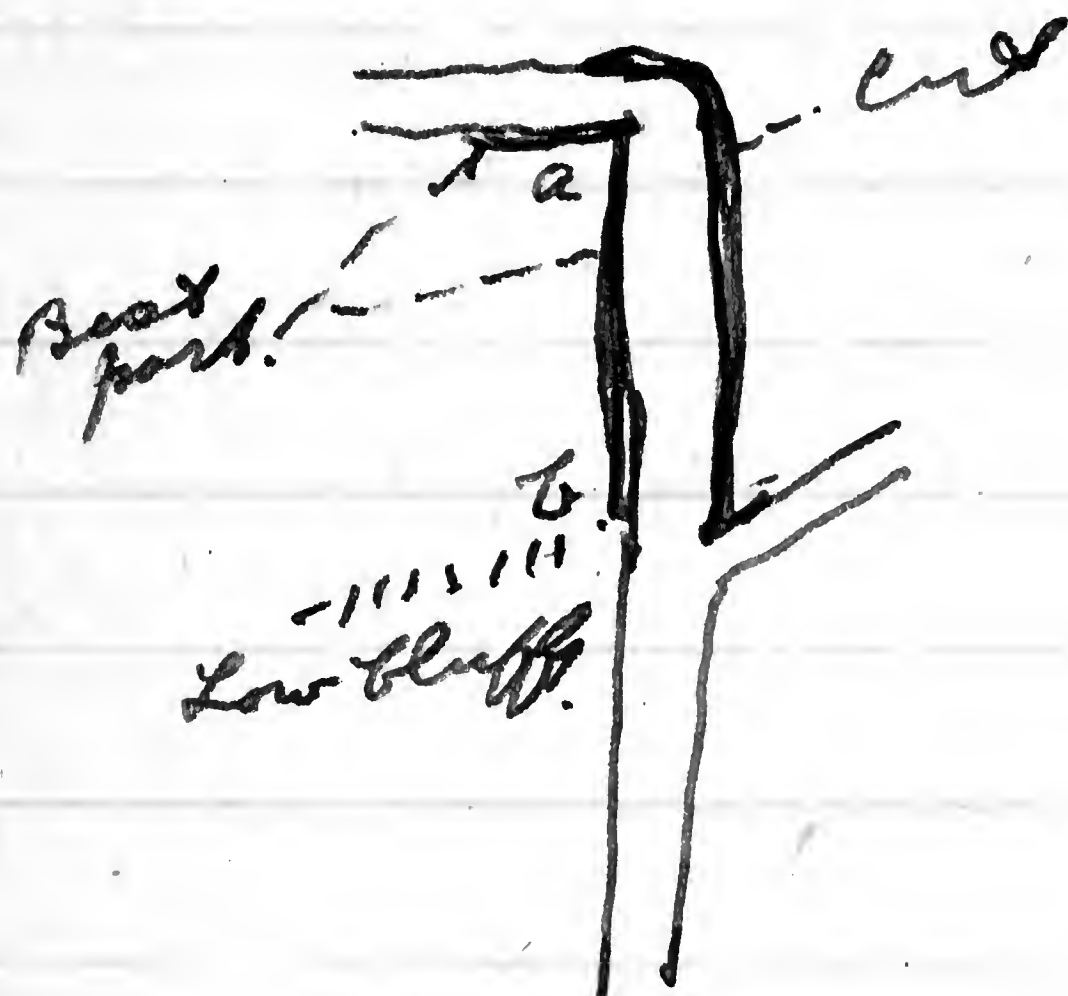




Aug. 28, 1935

24

Cut along road S. of Lewistown  
towards Waterford, - at center  
of Sec. 31 in same Twp.



waterbn

At (a) about 10 ft., - all light yellow  
loess. Shows harder material and  
drift towards lower slope at (b)

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at 247.2 - on road toward Enion, Ia  
Small ridge shows gray loess  
with iron bands, cloudings & horizontal  
lines (many in places) + very fragile  
fossils. Samples of each & fossils taken.  
(over)



~~Red, lobular~~

gray loam

7 ft.

Road

Other cuts without  
fossils, pp. 22, 23



Aug. 28, 1935

along # 98, 5.8 mi. W. of  
W. end of Havana, Ill., bridge  
on side road (at entrance) running  
north. (at 253.6 + miles)

at least 8 ft. of gray  
fossiliferous loess, with lime  
nodules and iron cloudings  
See box of shells.

This is well up, - top on  
level with general surface.



Aug. 29, 1935 Cass Co. 26

Cut on Road #78, 1.9 mi S.  
of Chandlerville, Ill.

A fine, long cut - in edge of bluff.  
E. side deeper & larger.

Shells were scattered all over  
this quite abundantly, - some,  
as Polygona monadon and P. multiloba  
in colonies. They extend clear  
to the top.

Took a sample 1 ft. from top  
and another 12 ft. lower.

The sand grades up gradually  
into fine light yellow loess  
through more than a foot. (Can  
old down below).

Total loess about 16 ft. &  
about 15 ft. of sand below, at  
highest part of cut.

Many lime nodules, but no sign of iron.  
Took box of clay from two spots  
at same level about 6 ft. apart  
and 9 ft. from top.

The loess evidently slopes down  
towards the west, being much  
lower on the west side, <sup>only 11 or</sup> 12 ft.

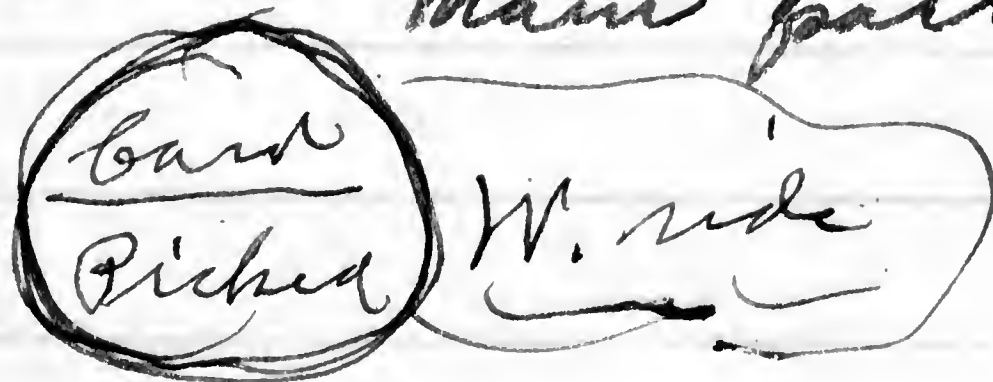
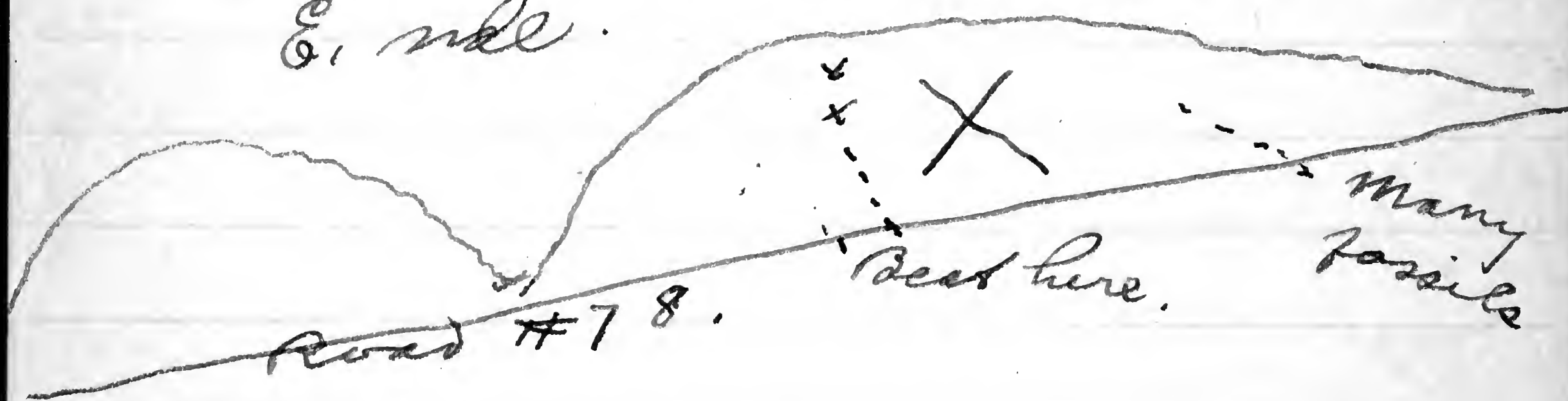


This is wooded country, - on bluffs,  
but is very dry now.

The Sangamon River has a good  
many bars here. Its valley and  
that of the Illinois blend here.  
What an opportunity for loess!  
Broad sandy flats and river  
bars for source, & wooded low  
bluffs for anchorage!

Cuts overgrown, - could not see if  
there is inter-stratification.  
Where I could see, the transition  
was gradual. Fine sand below.

E. side.



West side



Picked W. side

27

West side

2 cards

E. side

Card.

Picked

Estimated  
1'8" + 40.

many shells

Margie picked up shells  
on west side & some on east,  
and I worked on E. side.

Notes in field. book 1935 II  
pp. 26-30.



~~Aug. 29, 1935~~ /28.  
~~East of Pekin, Ill., on #24~~

Sept. 13, 1935.

Valley below Keokuk narrow,  
bare little trees.

On road over ridge, west  
of Hardin, - 2.3 mi. W. of bridge,  
a cut on top of Miss. bluffs - there  
is loose yellow loess. Shells  
only at surface (recent). See samples

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At 3.3 mi. E. of Hardin, -  
a low cut (6 ft.) in gray  
loess with iron belt (see sample)  
and two shells (loess?)

On low ridge in valley, facing E. -  
W. of top.

This great ridge separates  
the Mississippi and Illinois  
valleys.



Sept. 13, 1935 Calhoun Co. 29  
at 3.8 miles W. of Harding  
at gentle slope facing W. on  
N. side of road, - a yellowish  
(grayish) loess, with iron tubules.  
Polyp. multilocata, etc.  
(see shells) - cut long, 10-12  
ft, exp.  
a little pebbly drift shows  
below.

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At 4.2 miles W. of Harding  
a similar yellowish loess has  
fossils.

See fossils + box of clay.  
This is ~~near~~ foot of Low Bluffs  
at edge of valley.

Card  
a) Picked  
b) Washed



The junction of Illinois &  
Mississippi Rivers described  
in Field-Book Br 19 35 II,  
pp. 40-41

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Sep. 14, 1935.

Alton, Ill.

At Market and E. 6<sup>th</sup> St.

There is a fine exposure 18 or  
20 ft. high, with vertical face.  
It is "pink" loess from top to  
bottom, and through it are  
scattered shells. Saw some  $\frac{2}{3}$  of  
the way up.

Mostly large Pol. multilinea,  
in one place crowded in a layer  
2 or 3 ft. wide. Shells mostly broken.

1 Polygyra appressa

Took sample and box of clay.

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Also drove to the Cliff Street  
exposure, but found it covered  
with stripping. Found no shells.

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Sep. 14, 1935.

31

On #67, 3.1 miles S. of  
Alton, Ill., a cut of yellow  
loess on E. side, just a little  
above river flat, on a "foothill"  
of the bluffs, shows some nodules  
and a few shells.

Took sample of clay.

---

cut without shells on pp. 43-44

---

My old cut 4.05 mi. S.E. of  
Crain, Ill., on #144. (see p. 7)

Took box of clay with fossils.

Margie picked some shells.

A yellow loess.

I took clay from Clark which  
slipped from upper  $\frac{1}{3}$ .

Near base of long slope, rising  
east.

Rock (shale) appears high  
above this loess, — on the  
slope above, along road.

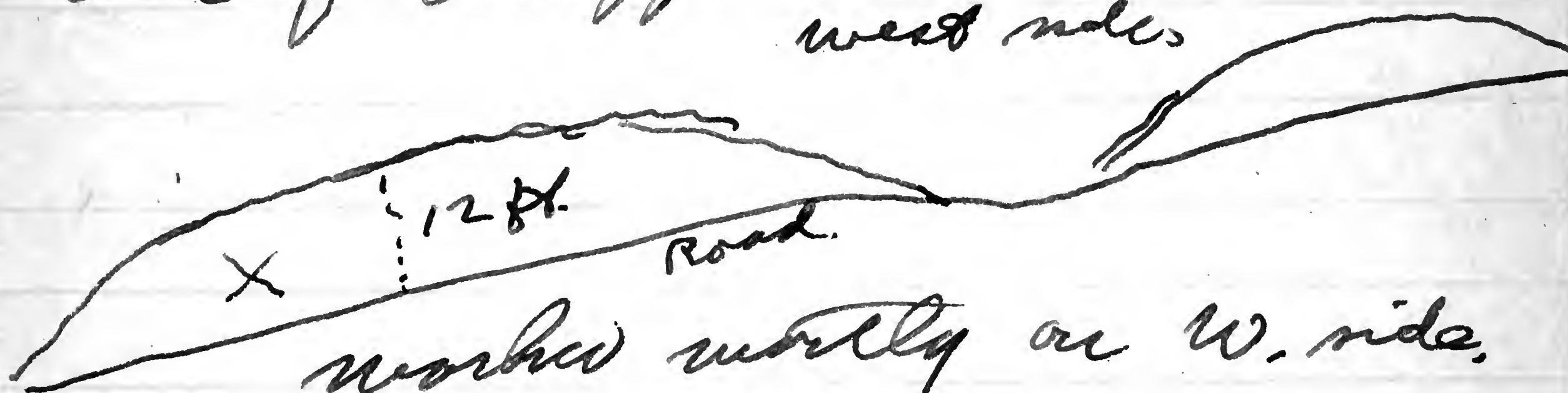


numerous cuts W. of  
 Murphyboro, Ill (no shells)  
 (see book for 1935, II p. 47.)

Also p. 50

Shawneetown bluff, 3 mi.  
 north of Shawneetown, Ill.  
Sept. 15, 1935

Cut extends well to top from  
 base of bluff. west side.



The lower cut (= X above) shows  
 a compact heavy yellow loess  
 of the older type, with gray  
 streaks, and below almost  
 all gray.

The fossils are mostly from  
 the lower  $\frac{1}{3}$ , but a few are  
 scattered above. They are very fragile.

About 3 ft. from bottom there  
 is an irregular layer of very (over)



large nodules (see spec.) and  
shells are plentiful here, -  
but fragile!

The bank is about vertical.  
The upper part of this cut is  
about  $\frac{1}{2}$  of the total. It  
shows about 4 ft. of red mud  
and about 8-10 ft. of yellow  
loess of same type, but it  
contains no fossils, - or possibly  
a very few. Took sample & box,

The upper cut, (4), shows  
uniformly yellow fossiliferous  
loess, capped in a few (4 to 9)  
uppermost feet with a layer  
more ash-like loess.

The lower part of the upper  
cut is about 12 ft. deep.

Collected shells mostly in  
lower 4-5 ft., by digging.

↑ Noted the same scattered nodules.  
↓

The shells are common to



Noted the same scattered nodules.

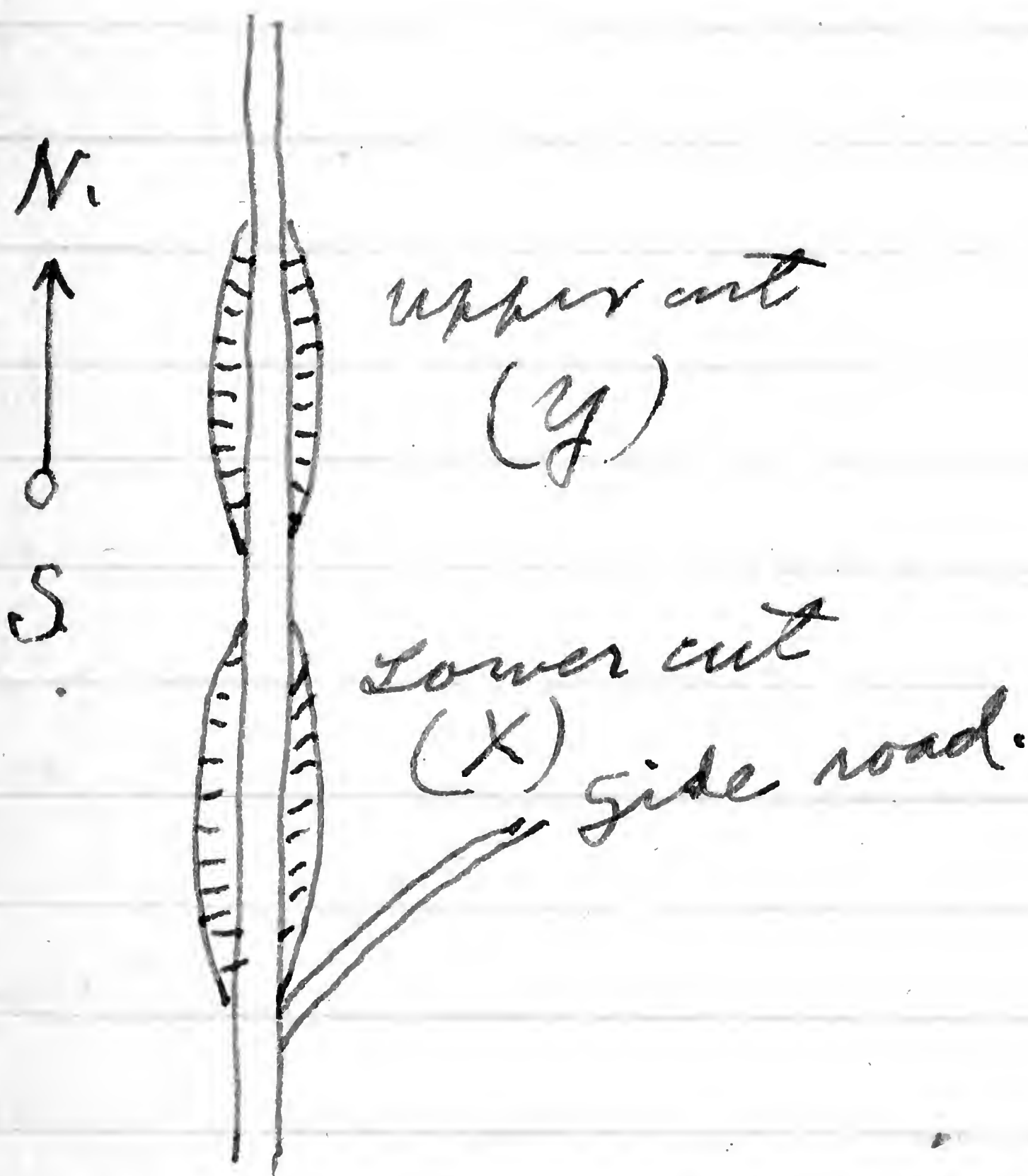
33

The shells are firmer than in the lower cut.

Took box of clay & sample, also a few nodules.

Cut runs up to top of hill. Did not work Tipton part.

Top view (plan) of cuts X & Y.



The upper cut is a, nearly, uniform yellow loess, upper part lighter in both color and texture.



Sep. 18, 1935

8.5 mi. E. of Boonville, Mo.,  
on #40, at foot of hill at  
outlet through bluffs to flat.  
A few scattered fossils &  
some nodules.

The fossiliferous section  
faces the valley.

---

Now fossiliferous cuts in Wisconsin  
Book for 1935 II, pp. 76-79.

---

Sep. 19, 1935

On flat below the big bridge  
on #65 at Waverly, Mo., at the  
RR. station above the bridge ( $\frac{1}{2}$   
a block below it) there is  
a section of yellowish <sup>loess</sup> (see small  
sample and nodules), but in  
part below is hard and white,  
with few iron tubules, but  
no fossils.

---

cut with no fossils - Book for  
1935, II, pp. 81, 82, 83.



Sep. 19, 1935

35

St. Joseph, Mo., cuts

Big cut of pale yellow loess  
at Miami & Clayton Sts.  
Saw one fossil

One block W. of Miami on  
Clayton, & about 20 ft.  
lower, there are two localities  
(on Russell str. S. of Clayton)

On E. side only about 4  
ft. exposed, - yellow loess.  
Took box.

On W. side about 6 ft.  
gray loess with tubules  
& fossils. Took box.  
("Russell" is 1 block E. of  
#59)

Cuts with no fossils at  
St. Joseph, Mo., Bohlbr 1935 II,  
pp. 86, 87

W. H. Weldon, Jr. #80



Oct. 14, 1935

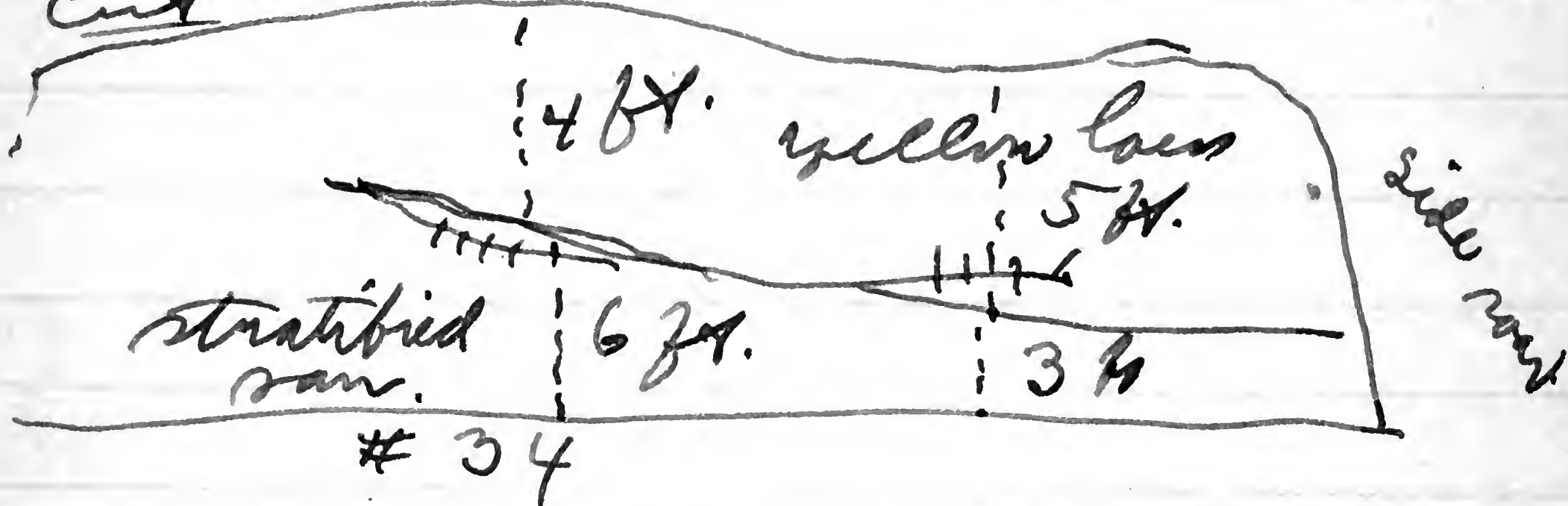
36

2<sup>nd</sup> cut on # 34, 8.65 miles  
E. of E. end of Burlington, Va.  
bridge. On N. side, only  
a light yellow loess (see  
sample) over dune.

~~Cut 3, - 8.75 mi. E. shows only sand.~~

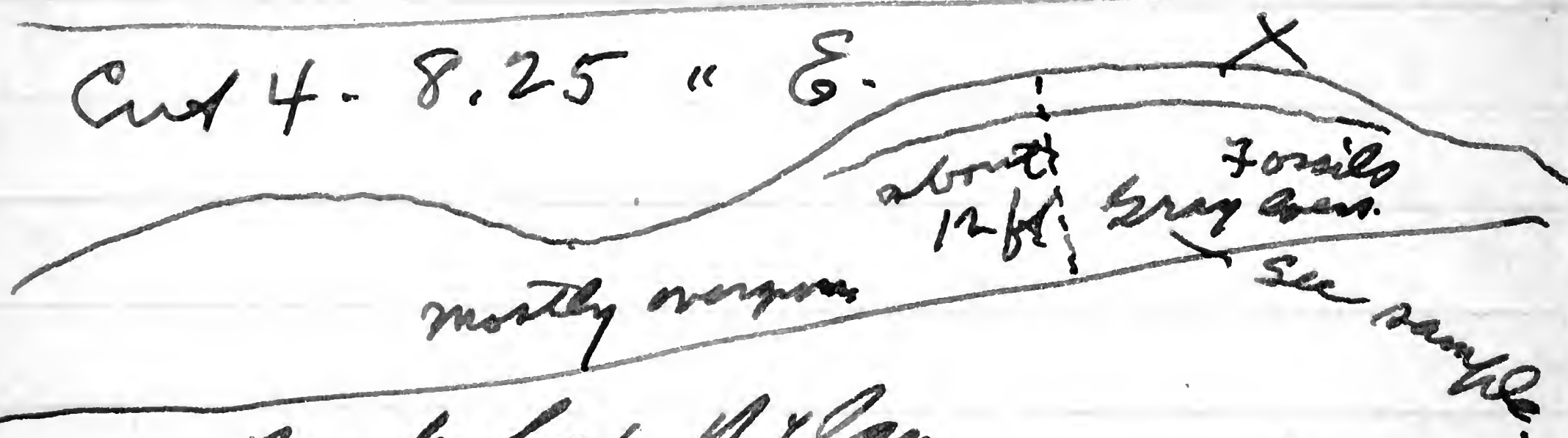
~~Cut 4 - 8.25 " E.~~

~~Cut 2.~~



Cut 3. - 8.75 mi. E. - sand only.

Cut 4 - 8.25 " E.



Took box of clay.

at top - 2-2 1/2 ft. of reddish lobular  
stuff. no fossils in this part  
Fossils throughout gray loess.  
few small nodules, & iron-oxidizing &  
some tubules. Best part at X, about 7 ft.  
deep.



Oct. 14, 1935.

37

Gladstone, Ill. - old cut 1 - on  
road going east. In face of bluff.



Picked up a few shells. Took  
sample & box of clay.

---

On 94 A, 2.3 mi. E. of Ognawka,  
Ill., inside of bluffs, new road  
cuts below old road, leaving latter  
as a terrace. New part of  
cut shows only drift.  
Cut above old road shows gray  
loess.

A good many fossils in the  
lower (east) part. At left  
only fragments of shells.  
Fossils at right (east) can  
extend well to reddish layer  
above.  
(over)



W.

Rockville  
Green Cove.  
Dwight.  
Old man cave  
18 ft. all drift  
New road level on bent.  
Wraytown  
Old man cave  
Toledo  
Toledo road  
Long  
x alkali

20

Oct. 14, 1935

38

20th alkali



Oct. 14, 1935

38

aledo  
70.32 - 124.6 1/2

#67

N  
↑  
S.

Henderson to  
cuts.

77.1

117.8 1/2

#67

alexis

79.4

115.4 1/2

#74

81.2

113.8

the 89.2 + 89.8 1/2  
cuts are of  
Henderson Cr.

Polebluff

86.9

109.1

88.1

88.4

88.7

89.2

106.8 1/2

105.8

#94

85.8

112.5

82.4

Henderson Cr.  
90-90.0 1/2

90.4 1/2

104.4, last cut

#94

92.4

102.6

102.2

2.4 mi.

#94.B.

95.7

#94A

98

100.2

4.5 mi.

cut 101.7

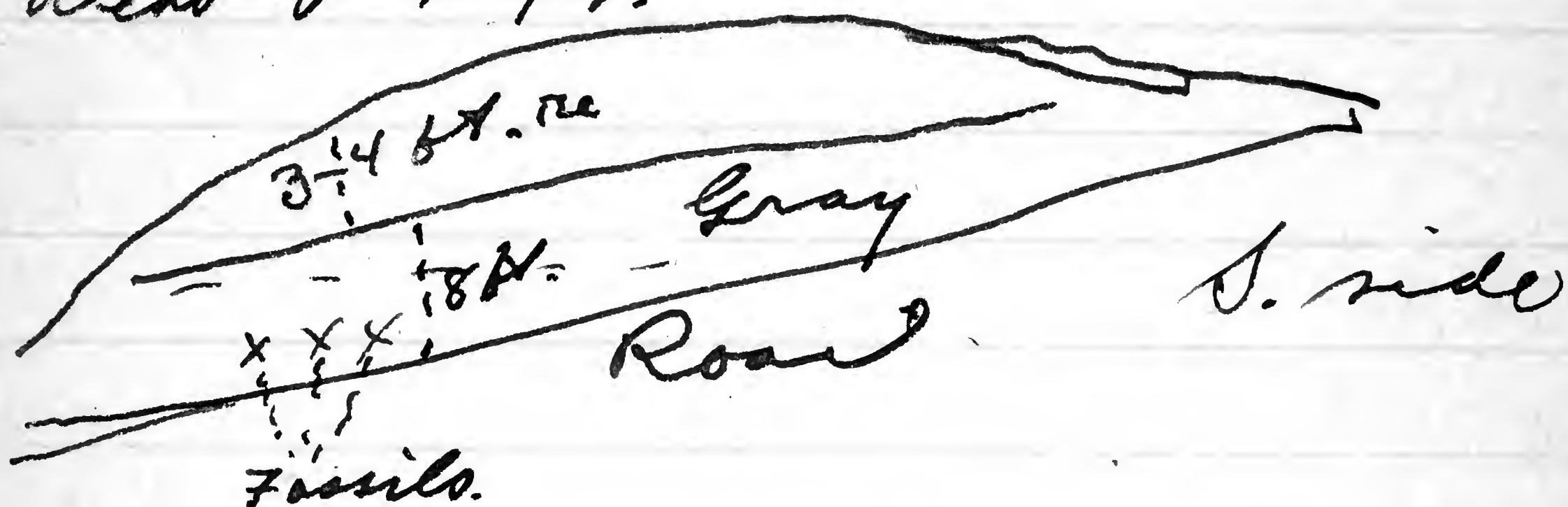
Ogumha



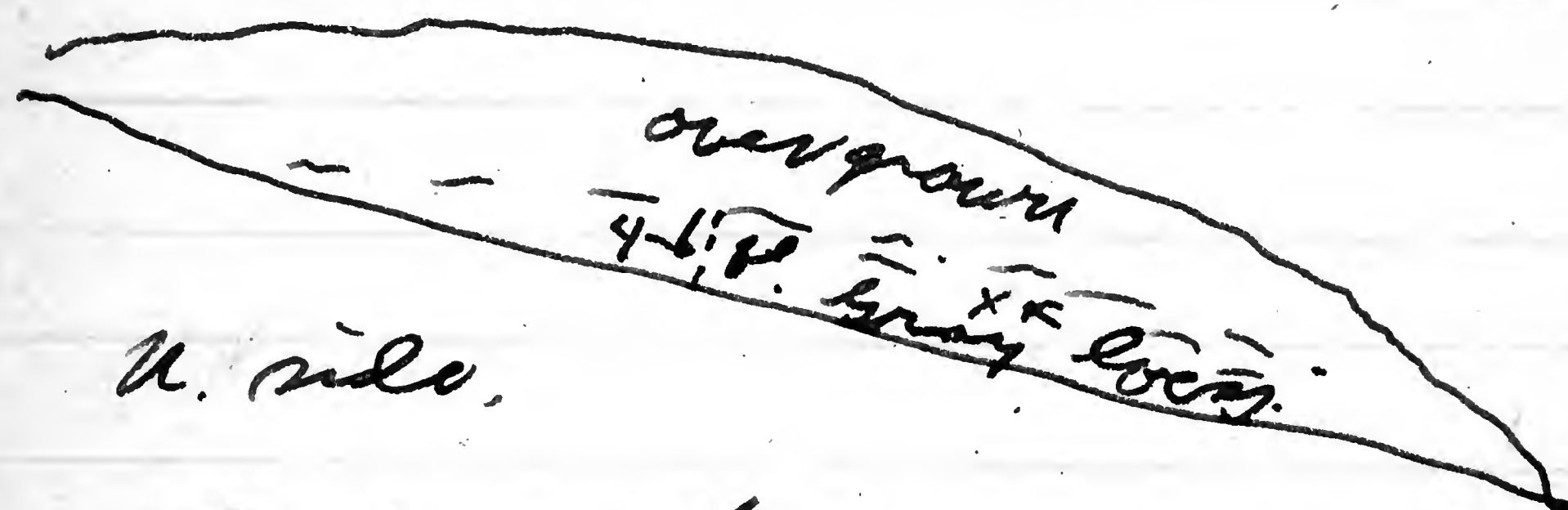
Oct. 14, 1935

39

on side road 4.5 mi. E. + 2 mi.  
N. of Oquawka, Ill., <sup>begin</sup> 100 ft.  
went to #94.



Took sample of upper & lower beds



The lower part is gray loess with  
rusty streaks, iron tubules & also  
scattered nodules.

Fossils are scattered all through

At about x there was a boggy place  
or pond, shows many small *Lymnaea*.  
Farther up hill I saw no *Lymnaea*,  
but *Succ. avana*, etc. appear.



Oct. 14, 1935

40

on side road (see preceding)  
about 260 ft. west of that cut

This is similar to preceding,  
6+ ft. of gray loess, with reddish  
top layer. Fossils (see shells)

Next is cut, about 265 ft.  
west of above, also shows gray  
loess, but no fossils.



Oct. 14, 1935.

41

at 102.6 (4.5 mi. E. + 2.4 mi. N.  
of Aquawha, Ill.

a fine cut, about 135 ft. long +  
about 10 ft. deep, on E. side, only  
gray loess with upper yellow, as before.

The gray is very fossiliferous,  
has nodules + clonings + tubules.  
Took sample and box of clay  
also shells.

(see also p. 111 (Book 1935, II)  
for diagram showing other cuts.

Oct. 19, 1935 (also 102.6 above)

Took two boxes of gray  
loess, one near middle of  
cut (#1) + one in middle of lower  
(B.) half.



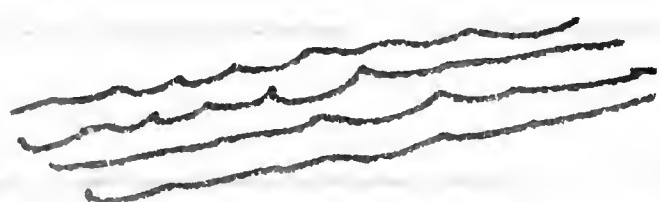
Oct. 14, 1935

42

Large cut of this day, at 104.4

4.5 mi. E. & 4.2 mi. N. of Ogunah

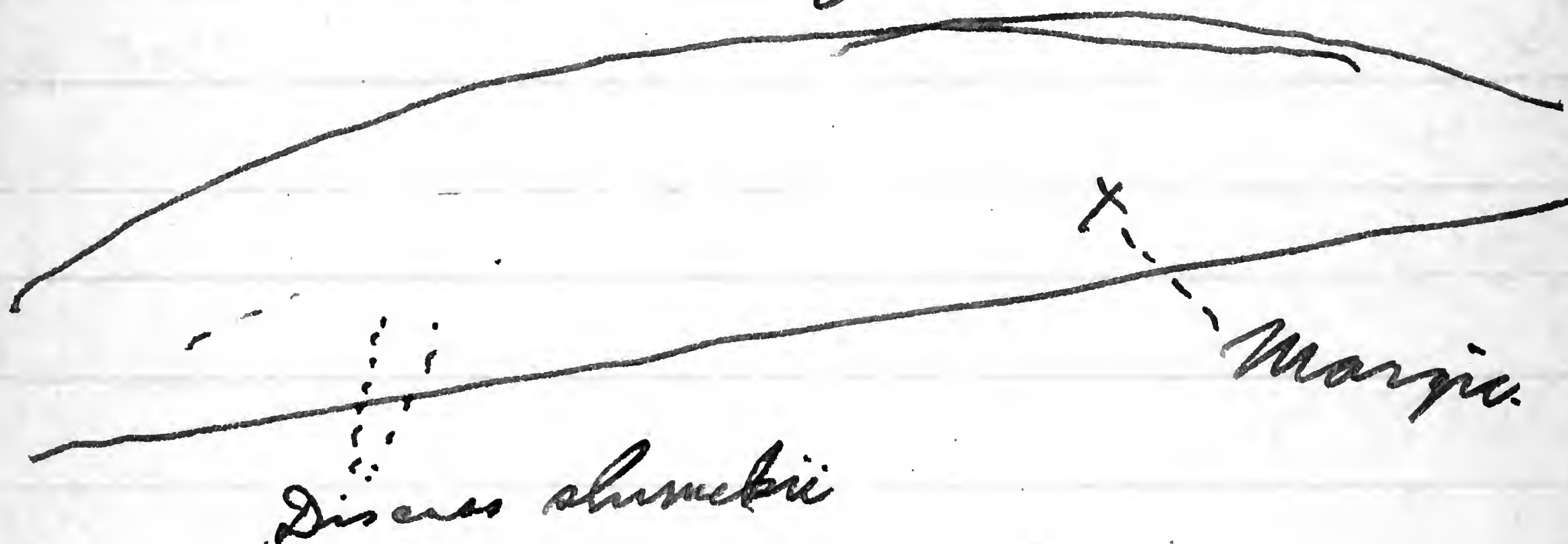
A fine cut, over 20 (25?) ft. deep. Yellow loess with wavy lines on weathered surfaces. (Dune effect.)



(see p. 248a  
this book)

Fossils are scattered. Took box of clay, sample & shells.

E. side of cut.



Oct. 19, 1935 - at 90.4½ mi.

(the last cut above on this base)

Took box of clay near base  
(6 ft.)

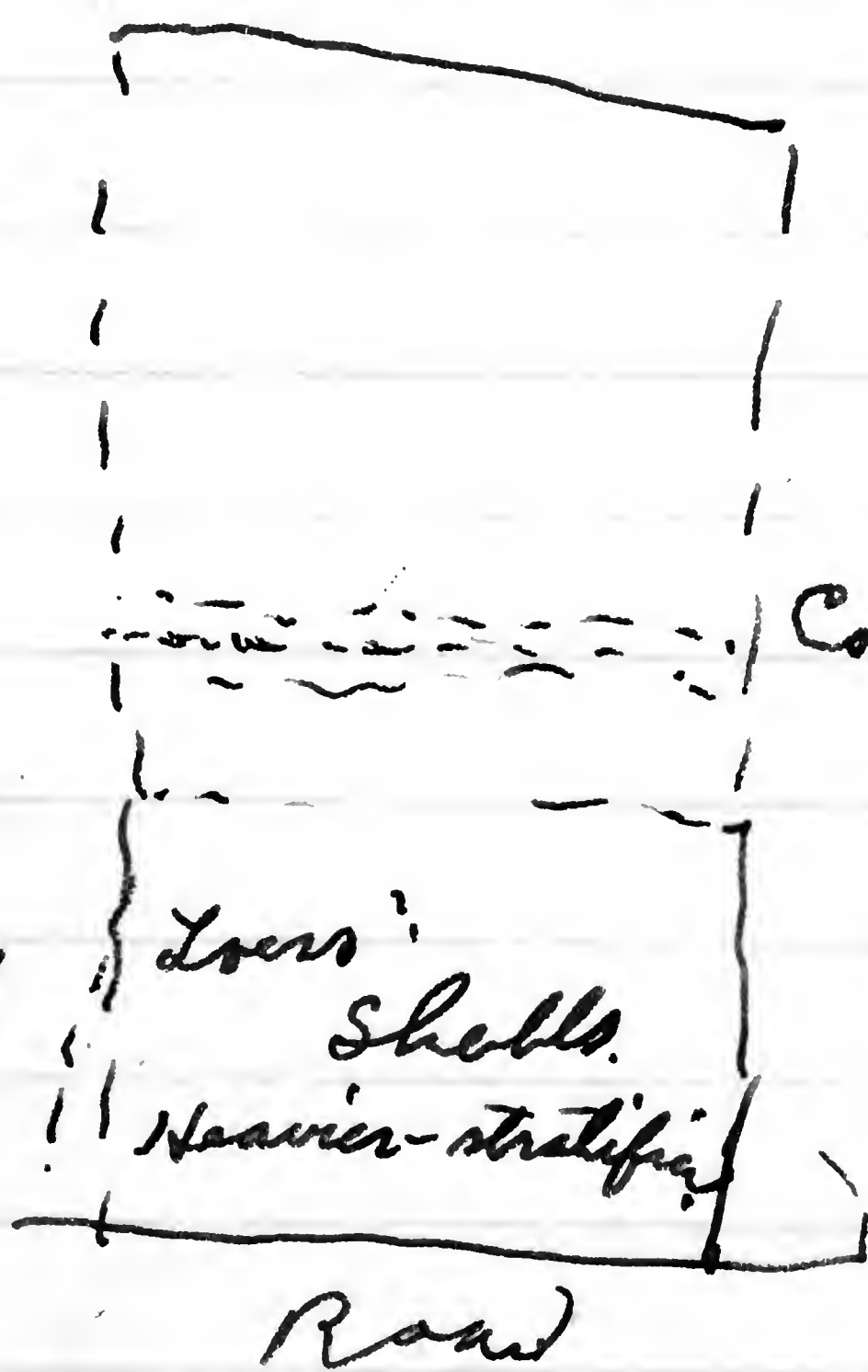
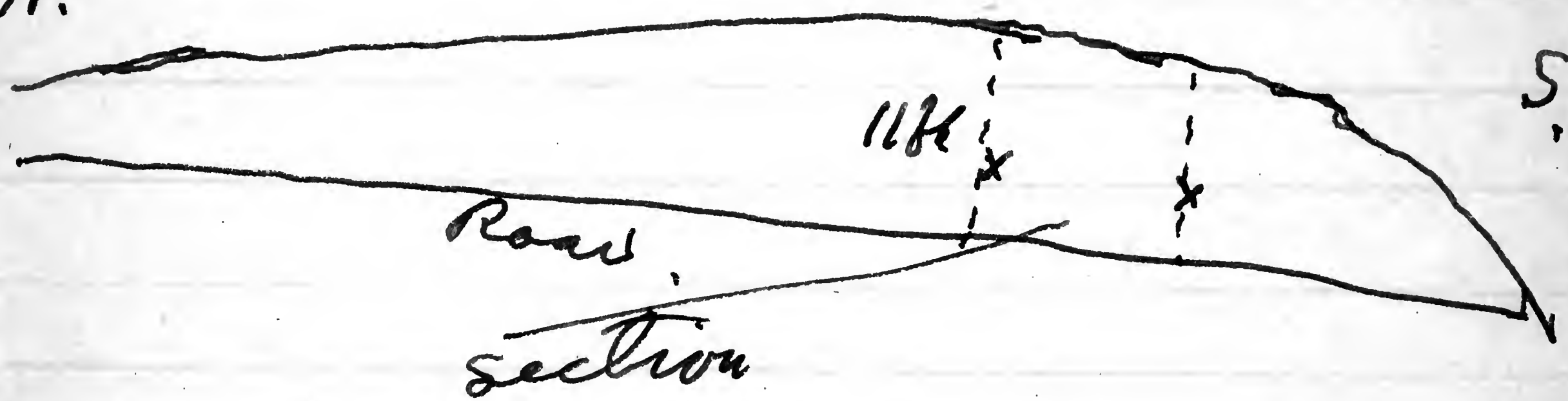


Oct. 19, 1935.

43

cut at 50.4 mi., 4.2 mi. S. of  
Copper Creek S. of #84, Illinois  
cut in road at base of bluffs, -  
about 120 ft. long. Slopes a  
little to S. The E. side is better  
It is near the base of the bluff,  
at edge of wide bottomland.  
The best part for fossils was  
between the X's.

N.



Coarse pebbly beds  
3-4 in. wide.

See p. 49)

(over)



The upper part ~~H~~12 is less stratified and more uniformly yellow.

The lower part has fine silt-like lines and, <sup>is</sup> brownish, with gray clondings.

Parts are sandy, especially below.

The gravel at base of bank may have been washed from top, or blown in very heavy storm.

It is also possible that this lower part was subject to overflow. It is about 20 ft., or less, above bottoms.

Took samples (middle + near base) + box of loess, - all from strip figured above.

Oct. 19, 1935

60.1

44.

80 - 20 - 100



Oct. 19, 1935

60.1

44.

A big cut at 60.1 mi, just where #83 enters bluffs, - near Joy and 10.3 miles west of Alledo, Ill.

It is about 25 ft. deep, & shows light yellow friable loess almost to base, but is badly overgrown with Robinia, etc. on both sides.

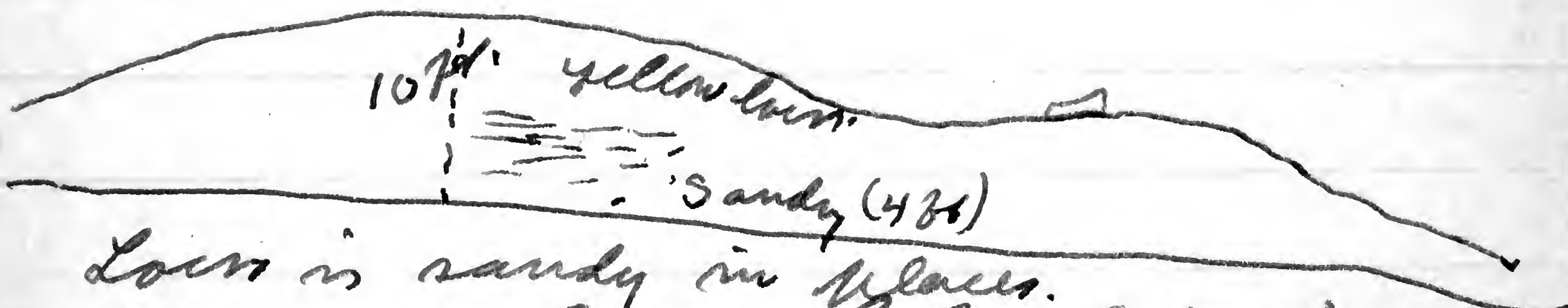
A few fossils seem to be scattered all through. A few round nodules. See shells, nodules + sample.

---

Oct. 19, 1935

Cut at 86.9, on E. & W. stretch of #94 1.2 mi. E. of Baldbluff, Ill.

In the west low bluff of the Broad Henderson Cr. valley.



Loess is sandy in places.

A sandy layer below (dune)

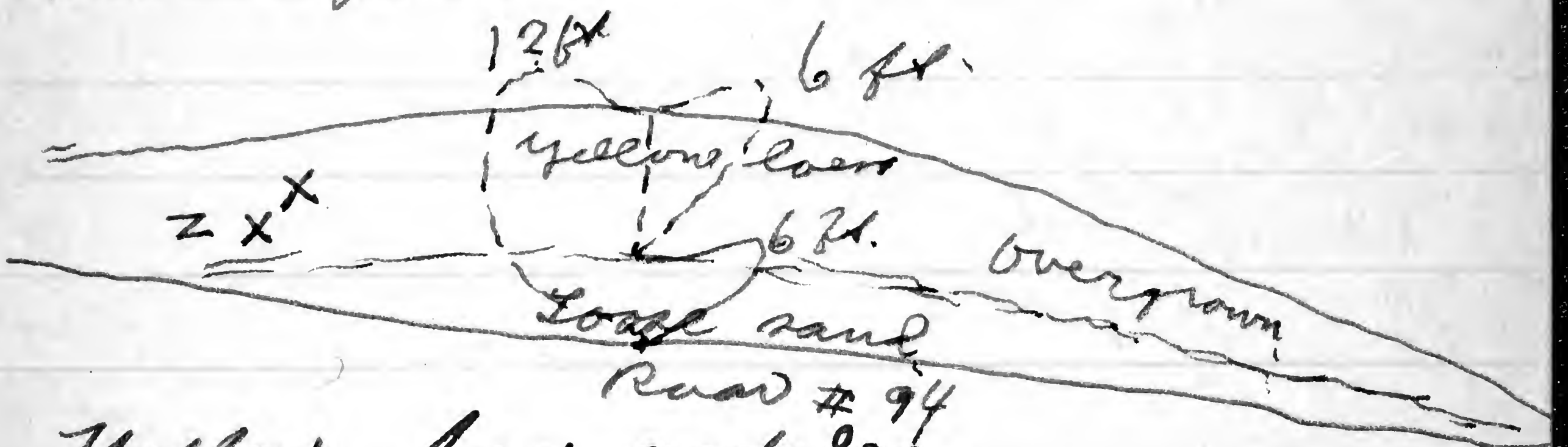
Few scattered shells.



Oct. 19, 1935

45

Cut at 88.4 mi., on E. side of  
#94 only .3 mi. S of turn at  
Baldbluff, Ill.,  
about 360 ft. long & 12 ft. deep  
in deepest place.



Yellow, - few nodules.  
Shells most abundant in east  
third of cut.

Took box from X & sample from  
Z.

all parts overgrown.



Oct. 19, 1935

46

at 88.7, - - 6 mi. S. of  
Bald Bluff, Ill. is almost  
exactly like the preceding  
(88.4) cut.

Fossils, loess & sand the  
same (took some).

---

Oct. 19, 1935

at 89.2 mi., just S. of  
Henderson Cr., on #94.

a fine yellow loess (all of it)  
with fossils scattered almost  
or quite to the top, but most  
abundant within 8 ft. of the base.  
Few nodules. Took bag, sample  
& shells.

This is really a fine  
series of cuts.

(see diagram on following  
page)



N.

Henderson Creek

No. mile - few nodules.  
Shells in all the cut.

Road #94.

Side road.

Sample.

lot.

about 20 ft.  
shells 18 ft. away

S.

A piece cut w. just below 47



50  
A fine cut W. just beyond <sup>47</sup>  
2nd little cut - show about same.

Oct. 19, 1935. <sup>1.75</sup>

At 87.85 mi. (~~87.85~~ <sup>1.75</sup> mi. S.  
of Baldbluff turn), on # 94.  
A cut on slope down towards  
S.

Gray loess with fossils  
scattered through, iron clonings,  
some iron tubes, and scattered  
nodules (see through).

About 12 ft. high on the (better)  
W. side, & capped with 3 or 4  
ft. of lobular heavy, yellow loess.  
No fossils in yellow part  
Took a small set of fossils only.



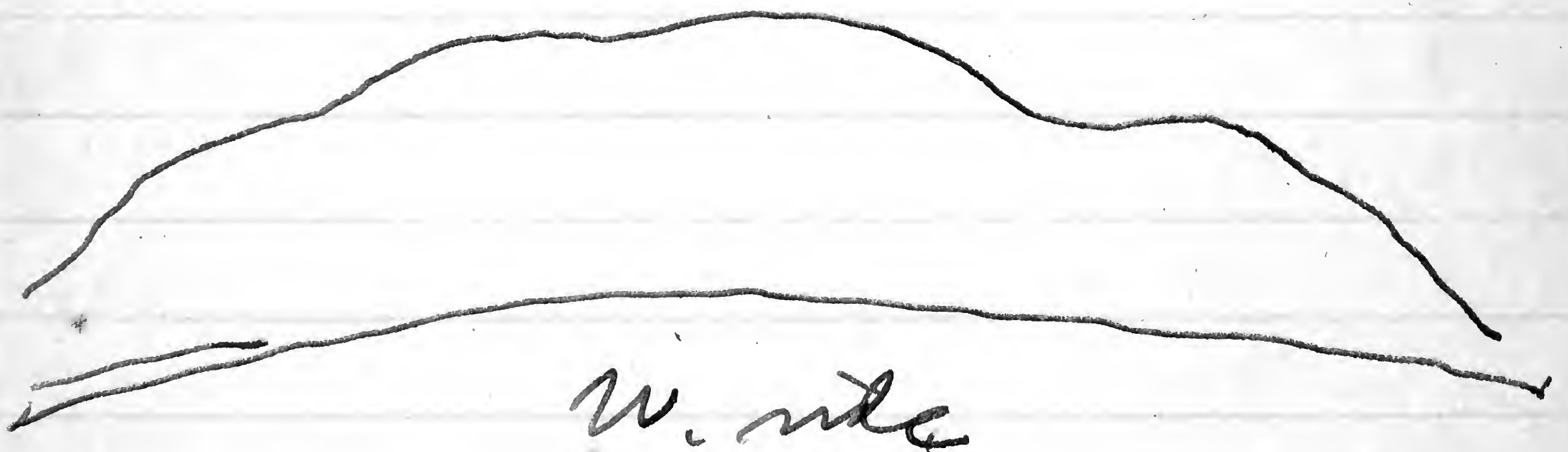
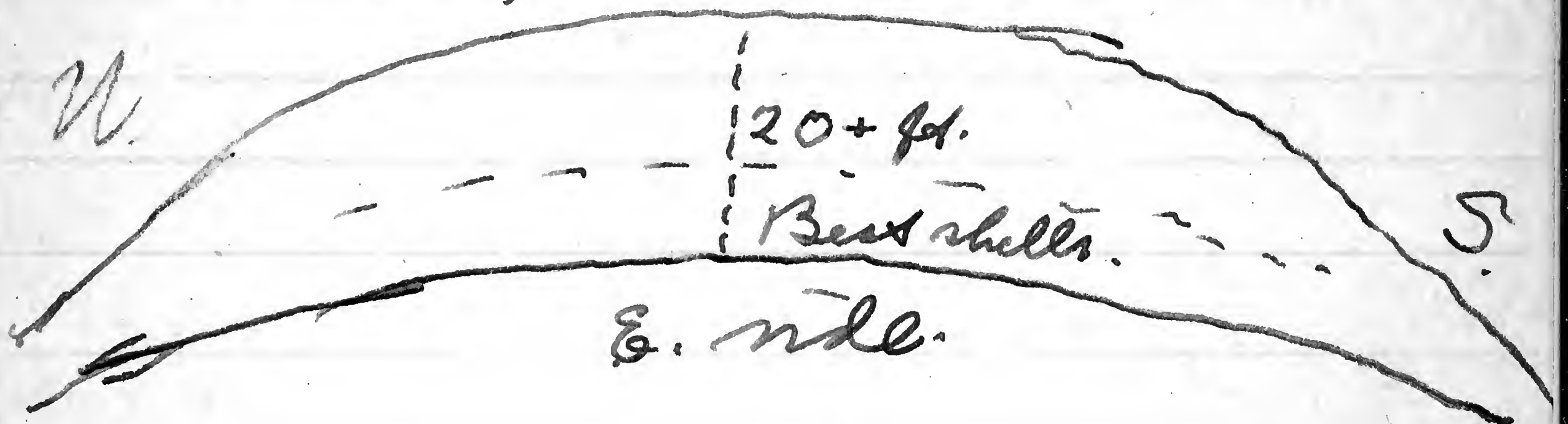
Oct. 19, 1935.

48

~~at 89.8  $\frac{1}{2}$  mi. (1.75 mi. N. of Baldbluff on #94.~~  
~~Slope down hill to south.~~

At 90.0  $\frac{1}{2}$  mi. (1.9  $\frac{1}{2}$  mi. S. of Baldbluff, Ill.)

Runs up & over hill to south.  
Loess grayish & mottled with iron.  
Must be over 20 ft. deep.  
Shells well up but not abundant  
in first 8 ft. Round nodules.  
See box, sample & shells.





48a

~~Oct. 19, 1935~~  
~~at 90.4" (old last cut at~~  
~~104.4) (see p. 42, this book.)~~

~~Oct. 19, 1935~~

49







50



Boxes for washing

W. of Hardin, Ill.

$$14 \times 10\frac{1}{4} \times 7\frac{1}{2} \text{ inches} = \underline{.62 \text{ cu. ft.}}$$

Upper cut - Shawneetown, Ill.

$$14\frac{1}{2} \times 12 \times 7\frac{1}{2} \text{ in.} = \underline{.76 \text{ cu. ft.}}$$

Lower cut, Shawneetown, Ill.

$$16 \times 11\frac{1}{2} \times 6\frac{1}{2} \text{ in.} = \underline{.69+ \text{ cu. ft.}}$$

Red loess, Alton, Ill.

$$9\frac{1}{2} \times 10\frac{1}{2} \times 7 \text{ in.} = \underline{.41 \text{ cu. ft.}}$$

Yellow loess, S. E. of Crain, Ill.

$$13 \times 11 \times 6 \text{ in.} = \underline{.5 \text{ cu. ft.}}$$

(The above were washed where  
# 67 & # 34 join in Missouri.)



~~Sept. 19, 1935~~

Oct. 14, 1935 - Boxes of clay  
(p. 114 of Book 1935-II)  
1 - sack - not measured

2 - Box from last cut at 104.4.  
 $11\frac{1}{2} \times 8\frac{1}{2} \times 2\frac{1}{2}$

3 - Gray loam - cut on E. side of  
#94 at 102.6 -  $10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2}$  in.

Better record on p. 127

Oct. 14, 1935

Cut 4 - on #34 E. of Burlington  
 $11 \times 10 \times 9$  in. = .57 cu. ft.

Old cut 1 - E. edge of Gladstone, Ill.  
 $11\frac{1}{2} \times 9\frac{1}{2} \times 8$  in. = .5 cu. ft.

Side road off 102.2 - Gray loam, W. of #94.  
 $13 \times 10 \times 8$  in. = .6 cu. ft.

Sack, gray loam, so near 2.3 mi. E.  
of Oquawka, Ill. about .6 cu. ft. (?)

Gray loam, E. side of #94 at 102.6.

$10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2}$  in. = .542 cu. ft.

Last cut before dark (= 90.4 in Oct. 19 lot)

$10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2}$  in. = .542 cu. ft.

(For Oct. 19 see next  
page)



~~Sept. 19, 1935~~

53

Oct. 14, 1935 - Boxes of clay  
(p. 114 of Book 1935-II)  
1 - sack - not measured

2 - Box from last cut at 104.4.

$$11\frac{1}{2} \times 8\frac{1}{2} \times 2\frac{1}{2}$$

3 - Gray loess - cut on E. side of  
#94 at 102.6 -  $10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2}$  in.

Better record on p. 127

Oct. 14, 1935

Cut 4 - on #34 E. of Burlington

$$11 \times 10 \times 9 \text{ in.} = .57 \text{ cu. ft.}$$

Old cut 1 - E. edge of Gladstone, Ill.

$$11\frac{1}{2} \times 9\frac{1}{2} \times 8 \text{ in.} = .5 \text{ cu. ft.}$$

Side road off 102.2 - Gray loess, W. of #94.

$$13 \times 10 \times 8 \text{ in.} = .6 \text{ cu. ft.}$$

Sack, gray loess, so near 2.3 mi. E.  
of Oquawha, Ill. about .6 cu. ft. (?)

Gray loess, E. side of #94 at 102.6.

$$10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2} \text{ in.} = .542 \text{ cu. ft.}$$

Last cut before dark (= 90.4 in Oct. 19 lot)

$$10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2} \text{ in.} = .542 \text{ cu. ft.}$$

(For Oct. 19 see next  
page)



Oct. 19, 1935 (Boxes)

S. of Copper Co.  
 $9 \times 9 \times 8\frac{1}{2} = .6 \text{ cu. ft.}$

at 88.4 - E. side #94 - yellow loess.

$12\frac{1}{2} \times 10 \times 8 \text{ in.} = .58 \text{ cu. ft.}$

at 89.2 - Big cut on #94 - yellow loess

$11 \times 11 \times 7\frac{1}{2} \text{ in.} = .525 \text{ cu. ft.}$

at 90.0 $\frac{1}{2}$  - Big cut, mottled loess.

$15 \times 8\frac{1}{2} \times 9 \text{ in.} = .664 \text{ cu. ft.}$

at 90.4 (= 104.4, last cut, of Oct. 14)

$11\frac{1}{2} \times 10 \times 7 \text{ in.} = .466 \text{ cu. ft.}$

Old cut (Oct. 14) at 102.6 - at middle

$13 \times 13 \times 7 = .684 \text{ cu. ft.}$

Old cut (Oct. 14) at 102.6, #2 at S.  $\frac{3}{4}$ .

$15 \times 8\frac{1}{2} \times 9 = .664 \text{ cu. ft.}$



